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Final Report

**AN ASSESSMENT OF ECOTOURISM
ASSOCIATED WITH BAO BOLON AND
KIANG WEST NATIONAL PARK IN THE GAMBIA**

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ACRONYMS AND ABBREVIATIONS

AFR	-	Africa Bureau
ANR	-	Agriculture and Natural Resources
ARTS	-	Analysis, Research, and Technical Support
BSP	-	Biodiversity Support Program
EEC	-	European Economic Community
FAPE	-	Federal Action Plan for the Environment
FARA	-	Food, Agriculture, and Resources Analysis
GAMTOURS	-	Gambia National Tours
GEAP	-	The Gambia Environmental Action Plan
GOTG	-	Government of The Gambia
ha	-	hectares
hp	-	horse power
IUCN	-	International Union for the Conservation of Nature
km	-	kilometer
KWNP	-	Kiang West National Park
LGRCT	-	Lower Gambia River Conservation Trust
LP	-	liquid petroleum
NGO	-	non-governmental organization
NIB	-	National Investment Board
ODA	-	Overseas Development Agency
PASA	-	Participating Agency Service Agreement
PVO	-	private voluntary organization
REDSO	-	Regional Economic Development Services Offices
TDA	-	Tourism Development Area
TFFT	-	Task for the Trust
UNDP	-	United Nations Development Program
USAID	-	United States Agency for International Development
WCA	-	West and Central Africa
WWF	-	World Wildlife Fund

EXECUTIVE SUMMARY

The U.S. Agency for International Development (USAID) has contracted with LABAT-ANDERSON Incorporated to study the ecological significance of the Bao Bolon wetland area of The Gambia, assess its potential role for ecotourism in association with Kiang West National Park (KWNP), evaluate possible environmental and social impacts of increased tourism in the area, and prepare a preliminary action plan to guide development of the Bao Bolon and Kiang West National Park area. From November 10 through December 3, 1993, a three-person team, working together with officials of The Government of the Gambia (GOTG), performed field work to accomplish these tasks.

The study area was the 20,000-ha tidal wetland complex on the north bank of the Gambia River opposite KWNP (approximately 80 km east of Banjul). This area, especially Bao Bolon (or creek), is currently attracting some tourists because of the concentration of birdlife, the area's relatively pristine character, and the availability of nearby accommodations. The wetlands complex that includes Bao Bolon has been informally proposed as an area to be annexed to KWNP. With support from USAID and the Biodiversity Support Program, the Gambian Ministry of Natural Resources and the Environment is approaching KWNP and Bao Bolon as an integrated conservation development project that can combine biodiversity preservation with sustainable development and serve as a model for The Gambia and elsewhere.

Based on the exploratory field survey, it is concluded that the wetlands complex that includes Bao Bolon could make an important addition to the KWNP and substantially enhance The Gambia's efforts toward biodiversity preservation. The significance of the study area lies in the fact that three distinct wetland ecosystems -- mangrove forests, salt marsh, and savanna-woodland -- all occur in very close proximity at several locations, yielding sites with high biodiversity and attractiveness to tourists. The area is relatively undisturbed, provides habitat for the complete life cycle of numerous fish and wildlife species including endangered species, contains four interdependent ecosystems, and supports local rural communities. The area also supports the highly productive and economically critical fishery in the Gambia River and tributaries. Finally, the area extends to The Gambia's border with Senegal and offers the potential for bilateral cooperation on biodiversity preservation and development. Because of its substantial national and regional ecological significance, it is recommended that the Bao Bolon and adjacent wetlands be formally annexed to KWNP so as to extend the protection and management offered by the park to this area.

With respect to their mid-term to long-term tourism development potential, the wetlands complex and KWNP offer extraordinary potential to increase ecotourism in The Gambia. Beyond the opportunities for wildlife observation and outdoor recreation, tourists may be attracted to the availability of (1) the whole ecosystem - river, bolon, mangrove swamp, forest, and wetland - all available in relatively pristine condition; (2) the cultural

biodiversity, including dancing, social customs, village social structure, and possibly handicrafts; and (3) the potential for demonstrating a harmonious relationship between local residents/villages and the ecosystem.

Substantial deficiencies in physical and institutional infrastructure must be addressed before The Gambia can capitalize on the tourism potential of the study area. The principal recommendation of this report is that The Gambia put in place as soon as possible a broad-based organization to manage private and public sector cooperation; one that could coordinate the efforts of several GOTG departments, various multi-national donor organization, and numerous private sector interests. Establishing this keystone organization is a necessary first step toward mobilizing the long-term, comprehensive planning effort that is necessary to sustainably develop KWNP and the study area.

Because development of the area's tourism potential requires that the environment not be degraded and that social aspects be managed very skillfully, it is also recommended that extensive monitoring programs be established to determine the ecological, social, and economic effects of tourism in the study area.

1. INTRODUCTION AND BACKGROUND

The U.S. Agency for International Development (USAID) has contracted with LABAT-ANDERSON Incorporated to study the ecological significance of the Bao Bolon area of The Gambia, assess its potential role for ecotourism in association with Kiang West National Park (KWNP), evaluate possible environmental and social impacts of increased tourism in the area, and prepare a preliminary action plan to guide development of the Bao Bolon and KWNP. This report summarizes the work of a three-person project team that performed field work in The Gambia November 10 - December 3, 1993, working together with officials of the GOTG.

1.1 OVERVIEW OF THE COUNTRY AND STUDY SITES

The Gambia is a very small country in West Africa that extends 15-50 km north and south from the lower 315 km of the Gambia River. The Gambia's economy is based primarily on agriculture and services. Tourism is the fastest-growing sector of the economy. The Gambia has beautiful beaches and a pleasant year-round climate that can be reached from Britain and Europe in 5-7 hours by air. The GOTG's planning calls for substantial increases in tourism to generate the revenues needed for additional development of the country.

Kiang West National Park, officially established in 1987, covers an area of 11,000 ha on the south bank of the Gambia River (Fig. 1). Of the four Gambian national parks, KWNP is in the earliest stages of development. Though located about 90 km east of Banjul, reaching the park requires a 140-km drive on the Trans-Gambia Highway. KWNP is relatively isolated because of its location on a peninsula between the Gambia River and Bintang Bolon (or creek). The park is in an area of minimal human habitation. Small villages border the park, and park lands are used for traditional agriculture, fisheries, and limited hunting. The park and adjacent lands, containing woodlands, rangelands, mangroves, and tidal creeks represent one of the best remaining habitats for flora and fauna in The Gambia. KWNP hosts over 300 species of birds, a variety of other wildlife species, and wetland areas that support the highly productive fisheries in the Gambia River. However, pressure on the park's resources is increasing as a result of poorly controlled burning, firewood collection (private and commercial), agricultural practices, and the regional trend toward desertification.

Bao Bolon is a tidal wetland complex on the north bank of the Gambia River opposite the village of Tendaba. Bao Bolon is one of six major bolons and many minor bolons that lie on the north bank opposite KWNP between the north bank villages of Selikeni and Katchang. Together, these bolons form a wetlands complex covering over 20,000 ha. The concentration of birdlife and the availability of accommodations at Tendaba have made Bao Bolon a noted destination in The Gambia for serious birdwatchers. The wetlands complex that includes Bao Bolon has been informally proposed as an area to be annexed to KWNP.

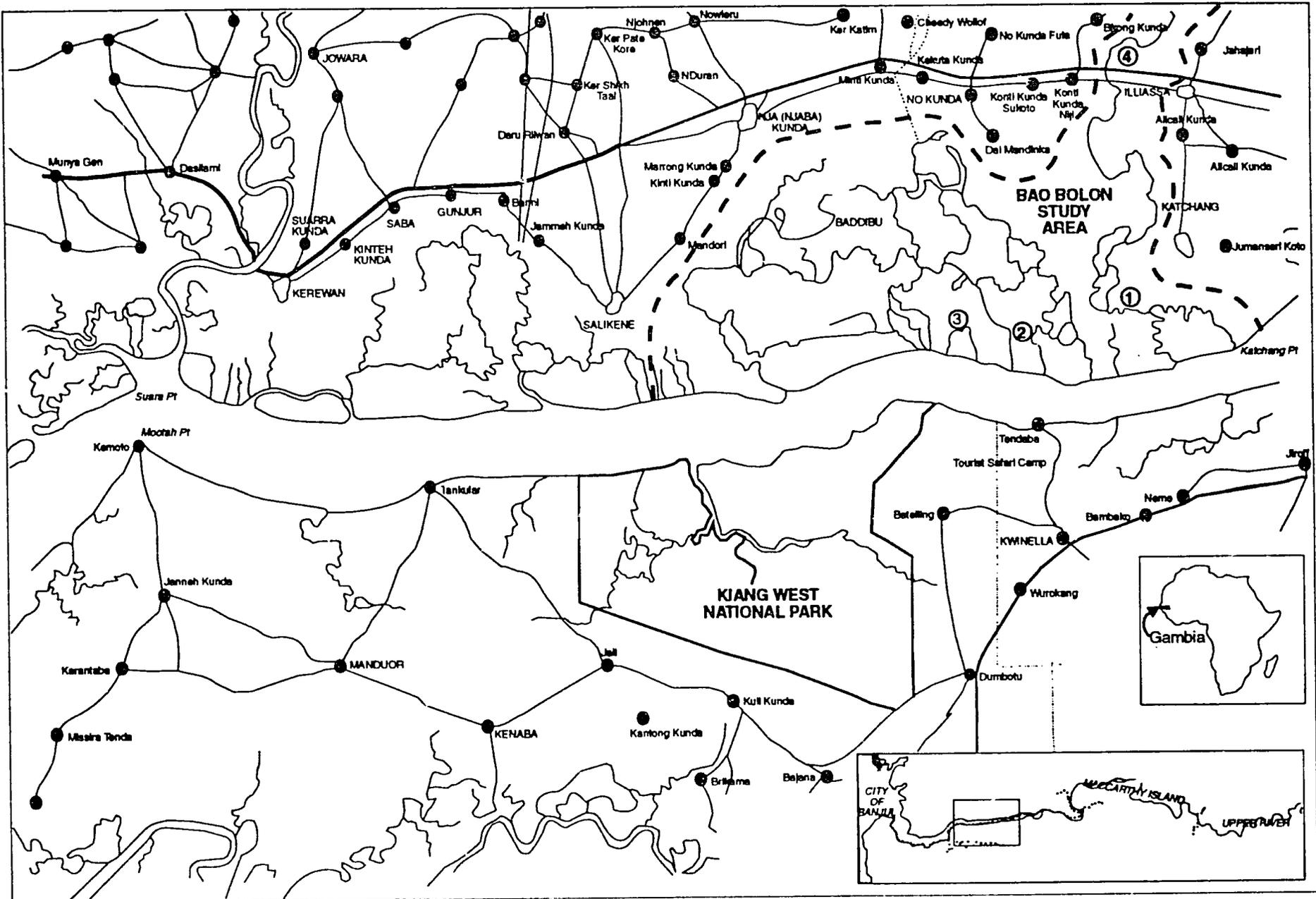


Figure 1. Location of Bao Bolon and the study area.

The GOTG envisions a prominent role for KWNP and Bao Bolon within its national planning. USAID has supported the initiative in the past through the Biodiversity Support Program and currently supports development of KWNP through the use of PL-480 funds. The Gambian Ministry of Natural Resources and the Environment is approaching KWNP and Bao Bolon as an integrated conservation development project that can combine biodiversity preservation with sustainable development and serve as a model for The Gambia and elsewhere.

1.2 PURPOSE AND SCOPE OF THIS STUDY

The three-week field work effort was intended to accomplish the following:

- Perform field surveys in the Bao Bolon area to better define significance of its ecological resources
- Gather data on current extent of tourism to KWNP and the Bao Bolon area
- Assess the potential for developing a viable, sustainable ecotourism industry based on KWNP and Bao Bolon, providing recommendations to expedite such development
- Assess possible adverse impacts from developing KWNP and Bao Bolon for ecotourism; collect information to allow determination of acceptable use limits

2. ECOLOGICAL SURVEY RESULTS

An exploratory ecological survey was conducted of the Bao Bolon area to accomplish the following:

- determine the major ecosystems and species composition;
- provide an indication of the area's biodiversity and species richness; and
- assess the general threat of present activities to wildlife habitats.

The following sections describe Bao Bolon as well as the additional major and minor bolons located opposite the KWNP. The study area extends along about 30 km of the north bank of the Gambia River and extends 5-15 km north of the river.

2.1 INVENTORY OF MAJOR ECOSYSTEMS AND SPECIES COMPOSITION

The study area contains the following four major ecosystems, described in detail in Appendix B:

- Tidal estuary - Open water areas of the Gambia River and bolons provide brackish water aquatic habitat varying in depth from several centimeters to several meters. These waters support productive and diverse tropical estuarine communities that include phytoplankton, zooplankton, benthic species (bottom dwellers and mudflat communities), and finfish.
- Mangrove forest - Red and white mangroves grow along the tidal channels, extending several hundred to several thousand meters from the tidal channels. Because they are tidally flushed twice daily, and because of the large surface areas of mudflats and tree roots, mangrove swamps are extraordinarily productive and biologically diverse, supporting attached and planktonic algae, mudflat species, oysters, finfish, large reptiles, and birdlife.
- Salt marsh - These areas are regularly or intermittently flooded and contain grasses and herbaceous species, small fish, benthic invertebrates, reptiles, and abundant birdlife.
- Savannah woodlands - Adjacent to salt marsh and occasionally flooded, these areas support acacia trees, shrubby growth, diverse but relatively sparse communities of grasses and weeds, and populations of mammals, reptiles, amphibians, and birds. These areas are often extensively modified by clearing and diking to permit rice cultivation.

2.2 ASSESSMENT OF BIODIVERSITY AND SPECIES COMPOSITION

In her 1993 publication entitled Forgotten Waters: Freshwater and Marine Ecosystems in Africa--Strategies For Biodiversity Conservation and Sustainable Development, Caroly Shumway provides criteria for determining the ecological importance of an area. These criteria are indicated below.

- Importance of ecosystem for ecological life-support systems and essential ecological processes
- Integrity of ecosystem (e.g., pristine vs. degraded by human influence)
- Whether ecosystem contains feeding, breeding, or juvenile areas for wildlife
- Interdependence of the ecosystem on other ecosystems (e.g., mangroves provide detritus for lagoon ecosystems)
- Rarity or uniqueness of ecosystem
- Whether ecosystem contains habitat for rare or endangered species
- Reliance of rural communities on ecosystem

Based on the results of our exploratory field survey and the criteria indicated above, the Bao Bolon area could make an important addition to the Kiang West National Park. The Bao Bolon contains a number of different wildlife habitats and an array of wildlife and plant species. In addition, its proximity to Tendaba Camp and Village provides easy access for biologists and tourists.

While probably not a continent-wide priority, the area could be of significant national and regional ecological importance. (The International Union for the Conservation of Nature has to date identified Gambia's Delta du Saloum National Park, located near the Gambia River's mouth, as a continental priority.) With proper development and management, KWNP and Bao Bolon have the potential to become internationally recognized as an ecological reserve.

The Bao Bolon area contains four distinct ecosystems, described simply as: tidal estuary, savanna-woodland, salt marsh, and mangrove forest. Each of these ecosystems contains specific wildlife species which have adapted to ecological conditions. In addition, wildlife species specific to one ecosystem may also be partially dependent on one or more of the ecosystems periodically (e.g., breeding). For example, many of The Gambia's resident

water birds are dependent on the wetland habitats, while migratory birds often require more than one type of habitat.

The particular biological significance of the Bao Bolon area is that all four ecosystems are sometimes found in close proximity. An area with sharp boundaries between ecosystems is termed an ecotone, and such areas frequently have abundant wildlife and high species diversity. Bao Bolon and the study area contain large areas of these four ecosystems, as well as several ecotonal areas with particularly abundant and diverse wildlife. Appendix B contains details regarding the biology of ecologically significant areas in Bao Bolon and the study area.

According to the Biodiversity Support Program (BSP) (1990), there are three wildlife species in the Kiang area which are considered endangered internationally: the Red Colobus monkey, the manatee, and the Nile crocodile. However, the BSP does not consider the Kiang area to be a critical habitat or a population stronghold for these species, i.e., KWNP and the study area are not current population strongholds for these species within the country.

The Bao Bolon and adjacent wetlands meet all but one of the criteria proposed by Shumway (1993) for ecological significance. The area is relatively undisturbed, provides habitat for the complete life cycle of numerous fish and wildlife species including endangered species, contains four interdependent ecosystems, and supports local rural communities. The only criterion not met by the study area is rarity or uniqueness of the ecosystems; in this regard, the lower reaches of the Gambia River contain extensive areas of similar ecosystems. What makes the study area important to The Gambia is its proximity to KWNP and the tourist facilities at Tendaba. For the reasons outlined above, every effort should be made by the Department of Wildlife, in concert with the local communities, to protect the area. Guidelines for planning and management of the area are suggested in Appendix C.

2.3 ASSESSMENT OF THREAT TO WILDLIFE HABITATS AND OTHER ACTIVITIES

The portion of the study area closest to the Gambia River appears to be minimally disturbed. Periodically, there was inconspicuous evidence of landing sites and entry and use of the bolons by villagers. While the precise use of resources along the bolons will require additional study, probable uses of the area include fishing, cutting of mangrove roots for building material, and simple water-borne transport.

Most of the human population is located in the northern section of the Bao Bolon area. Villages are engaged in agriculture, fishing, and livestock activities. The greatest threat to the Bao Bolon area from rural communities appears to be from agricultural activities. Areas which are flooded during the wet season but usually free of salt water intrusion are cleared,

diked, and used for growing rice. The influence of livestock (cattle and goats) is felt primarily close to the villages and only to a minor extent in or near the wetlands. Another major threat, particularly in the northern portions of the study area and throughout most of KWNP, is fire. Repeated burning, the constant pressure of subsistence and commercial firewood collection, and long-term drought conditions possibly associated with regional climatic change appear to be causing deforestation along the northern border of the study area.

The Tendaba Camp is providing bird watching boat excursions through the Bao Bolon area. These trips use pirogues (canoe-like boats), 4-10 m in length, holding between ten to thirty people. The pirogues are powered by outboard motors (8-25 hp). Trips most frequently begin in the early morning or mid-afternoon and last 1.5 to 4 hours. At this time, the canoe traffic appears to be limited to approximately two canoes a day during the tourist season. It appears that the canoes only make use of two or three of the bolons which have easy access and satisfactory bird watching (Kisi, Duntu Malang, and Tunku Bolons).

There was no evidence that the canoe trips were affecting the Bao Bolon ecosystem. However, no empirical determination can be made regarding the present or potential impact of canoe traffic on the ecosystem (e.g., erosion, mangrove mortality, pollution) without an appropriate monitoring program.

Guidelines for the development of a management plan (e.g., monitoring, tourism, concession guidelines) for the Bao Bolon area are provided in Appendix C.

3. FEASIBILITY ASSESSMENT FOR ECOTOURISM AT BAO BOLON AND KIANG WEST NATIONAL PARK

The potential for ecotourism at Bao Bolon and KWNP was evaluated in the overall context of tourism in The Gambia. The tourism assessment is discussed in detail in Appendix D. Summary observations and findings are as follows:

- On a national scale, The Gambia's tourism industry relies on a narrow segment of the tourist market, namely budget-conscious visitors from Britain and northern Europe who come to The Gambia on pre-paid tours primarily to enjoy sunshine and the beach, mostly during the high season (winter months). Only about 5 percent or fewer of these visitors leave the beach area near Banjul to travel up-country.
- Until the 1993 season, tour and hotel operators have had little incentive to market overnight travel up-country because it lowers hotel occupancy. Ground operators may also have believed that up-country travel has limited appeal to tourists who have pre-paid their package tours and are reluctant to spend more. During the 1993 season, however, record bookings have resulted in high occupancy rates and potential overbooking. This may set the stage for substantial increases in the volume of tourists to areas such as the study area and KWNP.
- The Bao Bolon and adjacent wetlands are already serving as an ecotourism destination because of their proximity to Tendaba Camp. The current activity is limited primarily to birdwatchers and up-country safari/trekkers who typically stay at Tendaba for 1-2 nights. At present, KWNP contributes little or nothing to Bao Bolon's status.
- All the bolons of the study area (north bank between Selikeni and Katchang) and KWNP (Jali Bolon) have tourist appeal and potential for development as scenic and ecotourist destinations. However, except for the areas currently being used, access is difficult. Mandori and Selekeni Bolons on the north bank and Jali Bolon in KWNP all require a boat trip of 1 hour or more from Tendaba. Roads and other infrastructure for land-based access to these bolons are virtually non-existent. This greatly restricts the potential for short-term increases in tourism in the areas near those currently used.
- Development of KWNP for visitors is in the earliest stage. Only initial construction of a single building at park headquarters has been completed. The park in general and park headquarters in particular are not ready to receive guests and appear unlikely to be ready for 6-12 months at the earliest. Providing adequate reception for visitors will require increased staff and upgraded road access to park headquarters.

- The three GOTG agencies most directly responsible for planning and development of the KWNP -- the Department of Wildlife, the Department of Tourism, and the Community Planning Department -- may wish to increase the current funding and staffing levels in order to meet the current expectations of local villagers and owners of nearby accommodations and to meet the potential short-term or mid-term increased demand for up-country tourism.
- In the mid-term to long-term, the Bao Bolon and KWNP offer extraordinary potential to increase ecotourism in The Gambia. However, substantial deficiencies in physical and institutional infrastructure must be addressed to capitalize on this potential. The Gambia in general, and the study area in particular offer tremendous potential for a variety of outdoor recreational activities and communing with nature. Contingent on a thorough evaluation of their environmental impact, these could include observation of the vast array of animal and plant life, sport-fishing, hiking, bicycling, and star-gazing. Although best known and superb, bird-watching is not the only potential interest of visitors to the park.
- The aspects of the study area which have the greatest potential for tourist development are (1) the whole ecosystem -- river, bolon, mangrove swamp, forest, and wetland -- all available in relatively pristine condition; (2) the cultural diversity, including dancing, social customs, native plant collection and use, village social structure, and handicrafts (watching them being made as well as buying them); and (3) the potential for demonstrating a harmonious relationship between local residents/villages and the ecosystem.
- The target markets for tourism to KWNP, Bao Bolon, and other up-country sites constitute a continuum ranging from the current types of tourists arriving in The Gambia to several distinctly new types. Recognizing that there is much overlap between some of these tourist types, the target markets are as follows (listed approximately from largest to smallest):
 - Bird-watchers
 - Overflow of existing "beach and sun" tourists
 - Ethnic tourists
 - Travel industry personnel
 - River journey-type tourists
 - Nature or conservation tourists (want to see rare or endangered species)
 - Researchers and students (tropical biology/ecology, anthropology, etc)
 - Boaters (kayaks, canoes, yachts, motor cruisers, etc.)
 - Low-budget trekkers
 - Handicraft shoppers and artifact hunters
 - Sport-fishing enthusiasts

- The types of tourism products that can be refined or developed to serve the KWNP and Bao Bolon are the following:
 - Package tours
 - Side tours
 - Guide services ("design your own tour")
 - Accommodations for tourists (e.g., camping sites, campgrounds, guesthouses, lodges, hotels)
 - Car rental services
 - Boat rental/charter services
 - Restaurants
 - Handicrafts and handicraft shops
 - Aircraft-based sightseeing or air transport to up-country sites

- Constraints on developing the Bao Bolon area are substantial. Most important is the institutional uncertainty that now surrounds the area; the lack of any real plan for developing tourism in the Bao Bolon area means that any investments to develop infrastructure or facilities pose greater risk than comparable plans to do this in a recognized tourism area. Another major constraint is the difficult access. Vehicle access by land to Bao Bolon requires at least three hours travel from KWNP headquarters or Banjul; in both cases, this includes the uncertainties of a ferry crossing. The near-complete lack of infrastructure also constrains potential development for tourism. There are few if any permanent settlements in the area, only the most rudimentary docks to permit access by small boat, and only trails leading into the area. The nearest accommodations are at least one hour away in Farifenni. Finally, if the Bao Bolon area were annexed to KWNP, the limited park staff would be a substantial constraint to developing or managing tourism activities in the Bao Bolon area.

4. DESCRIPTION OF A HYPOTHETICAL SUSTAINABLE DEVELOPMENT SCENARIO

A "scenario" is defined as a story or narrative that is sufficiently detailed so that the readers can imagine themselves as a participant. The following scenario of ecotourism development is presented as a reference case solely for the purpose of evaluating possible environmental impacts, as discussed in Section 5. The scenario is not a prescription of how development should occur. Rather, it is simply one of many possible development paths. While this scenario attempts to balance development and preservation, it must be recognized that each possible development path involves important tradeoffs that must be made. This scenario is intentionally vague and is only very loosely based on the action plan found in this report. The scenario illuminates some of the key decisions the GOTG must make in selecting its preferred development path for KWNP and the Bao Bolon study area.

Short-term events (1-2 years):

- Increasing emphasis on up-country tourism forces KWNP into a "crisis management" mode that includes greatly increased interaction and cooperation between private sector (hotel and tour operators) and public sector (Departments of Natural Resources and Environment, Tourism, and Community Development). An initial planning framework is laid and institutional organization is begun.
- Progress on basic park physical infrastructure results in easier tourist access. Upgrading of accommodations at Tendaba Camp and Kemoto Lodge produces a small but steady stream of water-based tourism to bolons of both the north and south banks. A similar but smaller stream of land-based visitors is also entering KWNP.
- Increasing threats to the forest and wetland resources on the north bank opposite KWNP cause the president of The Gambia to release the "Illiassa Annex to the Banjul Declaration" which declares The Gambia and its river to be "the battlefield in the fight against southward-marching desertification in West Africa." This proclamation calls for gazetting Bao Bolon and adjacent areas as an annex to KWNP; for the establishment of a larger planning and management district that includes the buffer zone surrounding KWNP; and for a national planning initiative aimed at ecological restoration, reforestation, and sustainable development.
- The President's National Environmental Agency, in cooperation with the Attorney General's Chambers, charters the "Lower Gambia River Conservation Trust" to manage private/public sector cooperation and coordinate donor organizations. GOTG Department of Information and Tourism establishes the first up-country Tourism Development Area (TDA) that extends from Kemoto Lodge to Tendaba Camp and from the North Trans-Gambian Highway to the South Trans-Gambian Highway.

- As a result of a medium-sized fuel spill at the XYZ Village fisherman's depot, a major pollution prevention program is launched by the Trust. In ABC Village, the Women's Handicraft Kafo (cooperative) is successful at producing and marketing local products to tourists and becomes a model that is copied by other villages with tourist traffic.

- The Gambia's Department of Tourism develops a marketing strategy that presents a carefully focused image of KWNP as an ecotourist destination. The brochure and ad campaign are directed toward "environmentally conscious" travelers rather than the beach and sunshine crowd or the birdwatchers. The effort is designed to attract a small number of "low impact" tourists who spend more than the current average tourist and consciously want to see more of their expenditure stay in The Gambia and benefit the economy of the area immediately adjacent to KWNP.

Mid-term (1995-1997):

- In 1995, the study area has become a standard item in tour operators' itineraries, attracting 100-200 visitors per week. Daily traffic into the bolon nearest Tendaba camp exceeds five boats per day. Daily land traffic into KWNP exceeds 10-15 vehicles/day. Local residents request increased monitoring to ensure that tourist traffic does not endanger ecosystem integrity.

- Increasing tourist traffic leads to increased employment (laborers, guides, service jobs at Kemoto and Tendaba), causing steady increases in the private revenues to bordering villages. This results in in-migration and population growth in these villages. The Trust organizes an LP gas distribution system to reduce firewood collection. Introduction of a saline-tolerant strain of rice causes increase in areas planted adjacent to study area bolons.

- Air service between Santo Domingo and Banjul is inaugurated, providing convenient connections for U.S. travelers. Tourist visits to The Gambia increases by 15 percent in the first year and 30 percent in the second year.

- GOTG officials are quietly approached by agents of LMN Resorts International, proposing to develop an "Afro-Eco-Park" in the area adjacent to KWNP between Tankular, Manduar, and Kenaba. GOTG officials agree to study the concept if LMN will provide \$2 million for a three-year, independent planning study and environmental assessment of carrying capacity.

5. ENVIRONMENTAL ASSESSMENT

5.1 ECOLOGICAL IMPACTS

5.1.1 Potential Short-Term Impacts

5.1.1.1 Tourism

There do not yet appear to be any significant short-term environmental impacts from tourism in the Bao Bolon area. Tourism in the area appears to be limited to small boat excursions through the bolons or walking safaris in a few specific areas. However, no empirical determination can be made regarding the short-term or long-term impact of canoe traffic on the ecosystem (e.g., erosion, mangrove mortality, pollution) without an appropriate monitoring system.

5.1.1.2 Rural Population Activities

Resource Utilization. There was evidence of mangrove utilization for fuelwood in the area. Areas along the bolon shoreline had slight modifications to allow the loading and unloading of mangrove resources. Fishing was also observed in the Bao Bolon area. In addition, there are villages located in the northern area whose residents are cultivating rice.

Potential Environmental Impact: Deforestation in the Bao Bolon area appeared to be moderate. However, it was not possible to determine the significant short-term negative environmental impacts from fishing in the area. Resident of villages may be clearing natural areas for rice cultivation. Rice cultivation is said to have the greatest potential environmental impact in the area.

Suggested Mitigation Measure: Land use by rural populations should be monitored to determine when, where, and how much of the Bao Bolon area is being used by the rural population. This could be accomplished using periodic socio-economic surveys and ground truthing.

5.1.2 Potential Medium- and Longer-Term Impacts

5.1.2.1 Tourism

Negative Effects of Infrastructure Development. Unless carefully planned and monitored, infrastructure development (e.g., firebreaks, improved or new roads, trails, camp sites) could cause negative impacts.

Potential Environmental Impact: Road construction could cause hydrologic disruption of stream and subsurface flows, with impacts to downstream wetlands; loss of vegetative cover, soil erosion, and sedimentation; disruption of critical habitat for breeding or nesting of wildlife; dividing of wildlife species' habitats; creating barriers to animal movement; noise impacts from heavy earth-moving and road-building equipment.

Suggested Mitigation Measures:

1. Careful survey work should be performed in and near proposed routes for firebreaks, roads, and other developments. Such surveys should occur during key seasons for the most sensitive activities (e.g., breeding or nesting).
2. Construction activities should be designed to minimize hydrologic disruption and incorporate erosion control.
3. Construction workers should receive education and training on minimizing construction impacts. The construction program should solicit and incorporate suggestions from workers to minimize adverse effects.

Increased Accessibility. Infrastructure development (e.g., improved roads, trails, camp sites) could reduce negative impacts in the area from tourism by limiting human use to approved areas. However, these improvements could also increase the movement of rural populations and tourists into areas which were previously less accessible.

Potential Environmental Impact: The increase in the movement of rural populations into areas that were previously less accessible could potentially increase deforestation and negatively affect protected areas. This could result from an expansion of agricultural activities, increased fuelwood consumption, and wildlife poaching.

Suggested Mitigation Measures:

1. The movement and activities of rural populations and tourists should be monitored to determine their distribution and activities. The improved roads, trails, and camp sites should be monitored for pollution and degradation (e.g., deforestation from fuelwood use).
2. Policies should be established which provide rural communities with incentives to manage their land sustainably (e.g., secure land tenure, access to game).

Physical Disruption caused by Tourist Traffic. Tourism in the area appears to be limited to small boat excursions through the bolons and walking safaris in a few specific areas. However, an increase in the number or size of the tourist boats could cause negative environmental impacts to the Bao Bolon area.

Potential Environmental Impact: An increase in water-borne tourist transport in the Bao Bolon area could cause erosion of the mangrove shoreline. This erosion could result in a loss of the mangrove forests and wildlife habitat. The Red Mangrove forests already appear to be under stress (e.g., increased salinity, possible tree disease, limited deforestation).

Suggested Mitigation Measures:

1. The movement and activities of rural populations and tourists should be monitored to determine their distribution and activities.
2. Limited ecological monitoring should be conducted to determine if there is a link between increased tourism in the area and shoreline erosion.
3. If appropriate, limitations should be placed on the size and speed of boats entering bolons within KWNP.

Tourist-generated Pollution: Increased tourism in the Bao Bolon could increase pollution.

Potential Environmental Impact: Increased tourism in the area could increase pollution in the form of trash and petroleum from tourism boats. It could also increase noise pollution in the area which may disturb wildlife and reduce the quality of the tourist experience.

Suggested Mitigation Measures:

1. The movement and activities of tourists should be monitored to determine their distribution and impacts.
2. Environmental legislation and associated environmental impact guidelines should be developed by the Government of The Gambia. Strict pollution control requirements should be incorporated in tourism concessions.
3. Tour operator activities and associated pollution should be monitored to determine if concession restrictions are being adhered to.
4. If appropriate, electric motorized boats should be required to reduce noise, petroleum releases, and exhaust gas emissions.

5.1.2.2 Rural Population Activities

Resource Utilization. Rural populations are using the area for agriculture (e.g., rice), fishing, and cattle grazing. It is anticipated that the rural population in the area will continue to increase and may negatively affect the area.

Potential Environmental Impact: Rural population activities in the area could have either positive or negative impacts on environment in the area in the long term. If not managed sustainably, more intensive agricultural activity, for example, could increase deforestation. However, providing technical assistance and off-farm employment to farmers could increase farmer incomes, allow substitution of LP gas for firewood, and potentially reduce deforestation.

Suggested Mitigation Measures:

1. Land use by rural populations should be monitored and policies established (e.g., land tenure) which provide people with incentives to manage their land sustainably. Every effort should be made to avoid alienating the rural communities.

2. GOTG extension workers, USAID/Gambia, and NGOs could continue to consider linking their present Agriculture and Natural Resources (ANR) project activities to rural communities in the Bao Bolon area.

Habitat Destruction and Wildlife Poaching. Until very recently, The Gambia's rural population has had little involvement with development agencies in the planning and management of protected areas.

Potential Environmental Impact: The result of poor relations between rural populations and protected area managers is often an increase in habitat destruction and wildlife poaching. These activities could also have a negative impact on threatened and endangered wildlife which inhabit protected areas.

Suggested Mitigation Measures:

1. Alternatives must be found which provide The Gambia's rural populations with economic and policy incentives to sustainably manage their protected areas. Specifically, government policy should link increased tourism with immediate and long-term economic benefits, e.g. preferential employment of people from neighboring villages for jobs as guides, facilitation of handicraft marketing, etc.

2. Environmental education should stress the need to preserve the ecological resource base and environmental quality in order to make ecotourism sustainable.

5.1.2.3 Tourism Development Coordination

Non-sustainable Development. Uncoordinated activities among the donors, NGOs, and the Government could result in unsustainable tourism development.

Potential Environmental Impact: Uncoordinated activities could have far-reaching effects on the environment and tourism. For example, contradictory policies and activities in the tourism sector could increase deforestation and produce disincentives to rural populations to use the area sustainably.

Suggested Mitigation Measure: Identify lessons learned from other countries in Africa and elsewhere regarding coordination and funding mechanisms (e.g., endowments, debt swaps).

5.2 SOCIOECONOMIC AND CULTURAL IMPACTS

As part of the field work to assess the Bao Bolon area for annexation to KWNP, Mamanding Kuyateh, a sociologist and director of the GOTG Community Planning Department, surveyed residents in the southern bank villages surrounding KWNP and in the northern bank villages surrounding the Bao Bolon area. The purpose of the survey was to identify the successes and failures in the interactions between KWNP management and the adjacent villages, to determine current attitudes toward KWNP, to evaluate potential acceptance of Bao Bolon as an annex to KWNP, and to provide a basis for assessing socioeconomic and cultural impacts of increased tourism at KWNP and Bao Bolon. The report regarding this survey is provided in Appendix E.

Socioeconomic aspects are critically important if KWNP and the potential Bao Bolon annex are to accomplish significant biodiversity preservation with increased tourism in the area. The creation of KWNP took land from traditional communal/individual ownership and transferred it to the national government. Because this land was used for fishing, rice farming, collection of oysters and other resources, and other purposes, the transfer of land was made with the understanding that existing traditional uses of the land would continue, at least for the near future. There was also the expectation among people living near KWNP that creation of the park would create benefits such as jobs opportunities, improved agro-forestry and gardening around the KWNP boundary as a result of water accessibility, and the establishment of hospitality camps near one or more villages for special tourists.

Discussions with residents of villages adjacent to KWNP suggests that the park has produced the following perceptions and impacts:

- There is general awareness and acceptance of the park.
- To date, relatively few conflicts have surfaced regarding resource utilization within and adjacent to the park.
- There is some disappointment with the slow progress in developing the park.

- There is concern that the park may harbor pest species (e.g., warthogs) that will damage crops.
- There is concern that the park is understaffed and the staff is unable to follow through with commitments.
- Control of fire remains an issue of major concern.

After the KWNP was established, the report of the Biodiversity Support Project (1990) report recommended the establishment of a Technical Advisory Committee (TAC) to provide liaison between the park and neighboring communities. Bi-monthly TAC meetings were recommended "to facilitate discussions of needs, concerns and issues pertaining to park planning and park management under the auspices of [the] National Agency for Conservation and Development." Such meetings are being held, and five villages have two representatives each on the TAC. On the national level, however, the National Agency for Conservation and Development apparently has not been formed or at least has never participated in management of KWNP.

With respect to the Bao Bolon area, the following facts are apparent from observation and discussions with people in adjacent villages:

- The villages surrounding the Bao Bolon exploit resources within the study area. This may involve fishing, grazing, farming, construction of small dikes to retain rainy season runoff for rice cultivation, and construction of larger dikes or other means to combat salt water intrusion. In some cases, the land adjacent to the village is used, but there are also instances of utilization and claims on land areas up to 20 km distant from the village. (Women and children will camp for extended periods at remote sites to protect and harvest crops.)
- Resources from the Bao Bolon area are also exploited by non-residents. Wood and thatch grass are sometimes collected and transported to Senegal for resale. The lands in and near Bao Bolon appear to be more heavily exploited than the areas near KWNP, i.e., the north bank area appears to be at greater risk than the south bank area for deforestation and desertification.

The possibility of increased tourism near KWNP and the Bao Bolon area may involve socioeconomic and cultural impacts such as the following:

- Increased development and tourism can expand the economic base of the local communities. However, unless they are carefully planned and managed, increased economic opportunities are likely to occur unevenly, causing disappointment in those areas not receiving what is seen as their fair share of the benefits.

- Increased development and tourism are also likely to impose social and economic costs on communities near the park, as development of infrastructure changes the landscape and some restrictions on resource utilization are introduced. It is important that KWNP's neighbors see the costs as evenly distributed and matched with economic benefits.
- The changes in socioeconomic benefits and costs have the potential to cause substantial, perhaps rapid positive and negative cultural change. Because the same changes may be viewed by some as positive and by others as negative, it is important that all stakeholders are able to voice their opinions and that decisions are shared.
- Tourism can prove to be "an unstable source of income, greatly influenced by uncontrollable factors such as political instability, weather, and international currency fluctuations" (Boo, 1990).
- If tourism causes labor demands at agricultural harvest times, labor shortages can result (Boo, 1990).

5.3 ADEQUACY OF INFORMATION BASE FOR ASSESSING ACCEPTABLE USE LIMITS

The team made use of a number of tools to assess the Bao Bolon area. Aerial photography and land use maps were obtained from the Department of Lands and Surveys in Banjul. The land use maps (1: 50,000 scale) provided detailed information regarding vegetation types and agricultural activities in the Bao Bolon area.

There is an abundance of information on the natural history of The Gambia. For example, the Department of Lands and Surveys vegetation maps contain information on the specific tree and plant species which are located in each vegetation type. The Gambia Forestry Department also maintains a 1968 publication entitled "The Common Trees and Shrubs of The Gambia." A practical field guide is also available which is entitled "A Naturalist's Guide to The Gambia."

The Biodiversity Support Program and the Government of The Gambia completed a management plan for the Kiang West National Park. The resulting 1992 publication is entitled "Kiang West National Park--An Integrated Conservation and Village Development Project." The park plan contains appropriate information on the biology and socio-economic characteristics of the park and surrounding rural communities.

As described in Appendix A (Assessment Methodology For Ecological Survey), the team obtained biological and socio-economic field survey information on the Bao Bolon area.

For example, all birds and other wildlife species were identified and recorded for each area visited. Information was also recorded regarding the different ecosystems encountered and how these ecosystems might interact.

The above information was used by the team to propose a tentative boundary for a Bao Bolon protected area. However, the tentative boundary is based entirely on biological and gross land use considerations. Almost no information was available regarding the opportunities and constraints associated with the rural communities in the area. Nor was any information available regarding the present land use activities associated with the contiguous land in Senegal. For these reasons, Section 6 of this report (Conclusions and Recommendations) recommends that:

- A detailed socioeconomic survey of the Bao Bolon resource area and rural communities be conducted as part of the process of establishing realistic area boundaries; and
- The Gambia begin a policy dialogue with Senegal for the establishment of a transnational management plan for the area.

6. CONCLUSIONS AND RECOMMENDATIONS

The study area that includes Bao Bolon and the wetlands complex north of the Gambia River opposite KWNP would be a very valuable addition to the existing National Park. The area has national and regional ecological significance for the following reasons:

- The area supports the highly productive and economically critical fishery in the Gambia River and tributaries.
- The area has locations where all three wetland ecosystems - savanna-woodland, salt marsh, and mangroves - occur in close proximity.
- The area extends to The Gambia's border with Senegal and offers the potential for bi-lateral cooperation on biodiversity preservation and development.

Therefore, it is recommended that the study area be formally annexed to KWNP so as to extend the protection and management offered by the park to this ecologically significant area.

With respect to tourism, the study area and Kiang West National Park offer extraordinary potential to increase ecotourism in The Gambia. However, substantial deficiencies in physical and institutional infrastructure must be addressed to capitalize on this potential. The study area in particular and The Gambia in general offer tremendous potential for a variety of outdoor recreational activities and communing with nature.

An important goal for increasing tourism/ecotourism in the study area would be to attract tourists of differing expenditure capabilities. The resources available will support the entire range, from budget-minded tourists, through "low-impact" (moderate expenditure) tourists, and even luxury, high-expenditure tourists, once suitable accommodations, organization, and infrastructure are in place. All of this requires that the environment not be degraded, and that social aspects be managed very skillfully. In short, developing the tourist potential fully will require very extensive and highly specialized research and planning over a period of many years.

Therefore, the principal recommendation of this report is that The Gambia put in place as soon as possible a broad-based organization to manage private and public sector cooperation that could coordinate the efforts of several GOTG departments, various multi-national donor organizations, and numerous private-sector interests. Establishing this keystone organization is a necessary first step toward mobilizing the long-term, comprehensive planning effort that is necessary to sustainably develop KWNP and the study area. This organization could be a trust, a foundation, a not-for-profit corporation, or an authority. Its role would be to coordinate the efforts of several GOTG departments, various

multi-national donor organizations, and numerous private sector interests. The exact form and organization of this body is beyond the scope of this report, but it should have the following characteristics:

- Independence from the GOTG - Private sector interests may be reluctant to invest in an enterprise controlled by the Government.
- Broad-based participation and support - The coordinating organization must have representation from all major stakeholders, including the local TAC, regional governing authorities, hotel operators, tour operators, and appropriate GOTG departments.
- Long-term funding - The coordinating organization must have adequate, long-term funding that is insulated from short-term political changes. Such funding might be provided through an endowment or by a debt-for-nature swap.
- Open process - The coordinating organization should hold open meetings, publish minutes, and generally publicize its activities to gain public support for its actions.

The coordinating organization, once chartered, should move quickly to hire staff, contract for technical assistance, initiate comprehensive planning, and begin to solve some of the infrastructural problems faced at KWNP.

Recommendations related to the management of the environmental resources in and near KWNP include the following:

- Obtain a long-term experienced consultant through the U.S. Peace Corps. The consultant would 1) coordinate with the Wildlife Department for policy development; and 2) provide direct assistance in the field for Peace Corps volunteers and GOTG implementation activities. USAID has been successfully implementing conservation and development projects with the U.S. Peace Corps in Niger (Park "W") and in Burundi (Kibira National Park) since 1987. The long-term consultants are typically procured by the Peace Corps using USAID/Washington funding and Peace Corps/Washington PASA contracts. Numerous evaluations of these projects are available for review.
- Develop a biological and socioeconomic monitoring plan for the KWNP and the Bao Bolon study area.
- Perform a detailed socio-economic survey of Bao Bolon resource area and rural communities as part of the process of establishing realistic area boundaries.

- Establish legislation and guidelines for the integration of environmental impact assessment, regulation, and mitigation into tourism concessions.
- Identify opportunities to apply "lessons learned" in USAID's agricultural technical assistance to farmers living adjacent to KWNP and the Bao Bolon area.
- Begin a policy dialogue with Senegal for the conservation and development of the Bao Bolon area reaching into Senegal. Discuss opportunities for the establishment of a transnational management plan for the area.
- Develop management schemes for pest or wildlife species for which natural controls may not exist in The Gambia. Consider periodic culling of pest species by the military.

Based on the interviews with village residents and an evaluation of socioeconomic issues surrounding KWNP, the following recommendations are made:

- Expand the Technical Advisory Committee (TAC) to include participation of extension workers from additional government agencies (beyond the Department of Wildlife) and NGOs (e.g., the German Gambian Forestry Program).
- Facilitate village participation by distributing TAC meeting agendas in advance of meetings, orienting village representatives regarding their roles, providing minutes of TAC meetings, and soliciting greater feedback from villages through follow-up and outreach.
- Approach the Commissioner of the Lower River Division (LRD), who is Chairman of the Divisional Coordinating Committee (DCC), to arrange to have the head of the KWNP management team sit at the DCC. This will greatly enhance the capabilities of the TAC.
- In establishing of a coordinating body (e.g., a trust or authority), consider the lessons learned from previous programs by the Department of Community Development (DCD) fishing program in Jali, the blacksmith programs in Bajana and Dumbutu, and the garden and bee-keeping programs.
- Recognize the traditional claims of areas affected by extending the park to the Bao Bolon area, e.g. claims of Illiassa over Tunku.
- Involve all development agencies operating in the area at both the village and Divisional levels.

- Approach the Commissioner for the North Bank Division and impress on him the need to integrate the Bao Bolon initiative into the activities of the DCC.
- Hold a series of meetings/discussions with villages surrounding the Bao Bolon area prior to intervention and definition of the park area, since it appears different people talk about different areas, in terms of what constitutes the Bao Bolon area.
- If the Bao Bolon is annexed to KWNP, permit the monitored exploitation of bolon resources, recognizing traditional claims on the area retained by local villagers.

7. ACTION PLAN

No.	Recommendation	Lead Agency	Target Date for Completion
1.	INSTALL STATE-OF-THE-ART COMMUNICATION SYSTEM. Radio and/or cellular phone communications would greatly facilitate all aspects, including fire control, planning, public/private sector cooperation, research, monitoring, and development/management of tourism.	GOTG Dept. of Wildlife	August 1994
2.	ESTABLISH ORGANIZATION TO FOSTER MORE BROAD-BASED MANAGEMENT (ESPECIALLY PRIVATE/PUBLIC SECTOR PARTICIPATION) FOR KWNP AND ENVIRONS		
a	Government and USAID accept recommendation	GOTG/USAID	April 1994
b	Convene "Task Force for Trust" (TFFT) to organize Coordinating Organization. Confer informally with potential donors.	GOTG (Minister of Natural Resources?)	May 1994
c	Contract consultants to prepare briefing document for donors, solicit initial funds to start up trust.	TFFT	June 1994
d	Initial public relations activities	TFFT	July 1994
e	Convene meeting of potential donors	TFFT	August 1994
f	Organize meeting/visit to park, etc.	TFFT	October 1994
g	Secure funding for Trust	TFFT	December 1994
h	Form Trust ("Lower Gambia River Conservation Trust" or LGRCT)	TFFT, Many participants	February 1995
g	Establish plan of action based on initial funding	LGRCT	March 1995

No.	Recommendation	Lead Agency	Target Date for Completion
i	Recruit executive director and key staff	LGRCT	May 1995
3.	LIMIT TOURIST ACCESS TO KWNP FOR THE NEAR-TERM. At present there is inadequate basis for rules and regulations. Provide park manager substantial discretionary power, based on best professional judgement.	GOTG Dept. of Wildlife	March 1994
4.	PROVIDE PARK MANAGER WITH TECHNICAL ASSISTANCE AND TRAINING, E.G., EXCHANGE VISITS TO AFRICAN PARKS FACING SIMILAR ISSUES.	GOTG Dept. of Wildlife, USAID	June 1994
5.	OBTAIN A LONG-TERM CONSULTANT THROUGH THE U.S. PEACE CORPS/WASHINGTON PASA CONTRACT		
a	Obtain USAID/Niger and USAID/Burundi grant agreements and project evaluations from AFR/ARTS/FARA.	USAID/Gambia	March 1994
b	Consider sending representative from Gambia Department of Wildlife to Niger to visit Park "W" in Niger.	USAID/Gambia and Peace Corps/Gambia	June 1994
c	Initiate cable traffic to USAID/Washington requesting "fall-out" funding for U.S. Peace Corps PASA grant.	USAID/Gambia	March 1994
d	Obtain long-term consultant from USDA Office of International Cooperation and Development. (Contact USAID/Uganda Mr. Gary Bayer regarding past difficulties procuring long-term consultant from U.S. National Park Service.)	Peace Corps/ Washington	December 1994
6.	RE-EVALUATE THE ECOLOGICAL AND SOCIOLOGICAL SOUNDNESS OF CURRENT WORK ON CUTTING FIREBREAKS AND ROADS. Current activities may be ineffective for fire control. Alternative locations might better satisfy needs expressed by residents of bordering villages.	GOTG Dept. of Wildlife	August 1994
7.	DEVELOP A BIOLOGICAL AND SOCIO-ECONOMIC MONITORING PLAN FOR THE BAO BOLON AREA. (Please refer to Appendix C.2 for guidelines regarding the development of a monitoring plan for Bao Bolon.)	GOTG Dept. of Wildlife	September 1994

No.	Recommendation	Lead Agency	Target Date for Completion
8.	PERFORM DETAILED SOCIOECONOMIC SURVEY OF BAO BOLON RESOURCE AREA AND RURAL COMMUNITIES AS PART OF THE PROCESS OF ESTABLISHING REALISTIC AREA BOUNDARIES (Please refer to Appendix E regarding land claims in the Bao Bolon area.)		
a	Coordinate with the Department of Community Planning to procure the services of a rural sociologist (Mr. Mamanding Kuyatch).	GOTG Dept. of Wildlife	July 1994
b	Develop a scope of work for the socio-economic survey. The survey should be designed to include answers to the questions provided below. <ul style="list-style-type: none"> • Who, where and how are people using the southern and northern areas of the proposed protected area? • What are the various protected area classifications and which classification (including no change) would most benefit the rural communities? • What economic incentives can be provided to rural communities to encourage sustainable use of the area (e.g., game meat and pest reduction, fish ponds). 	GOTG Department of Community Planning	August 1994
9.	ESTABLISH LEGISLATION AND GUIDELINES FOR THE INTEGRATION OF ENVIRONMENTAL IMPACT ASSESSMENT, REGULATION AND MITIGATION INTO TOURISM CONCESSIONS. Please refer to Appendix C.1 for guidelines regarding the integration of environmental impact concerns into tourism concessions.	GOTG and LGRCT	June 1995
10.	IDENTIFY OPPORTUNITIES TO PROVIDE AGRICULTURAL TECHNICAL ASSISTANCE TO FARMERS LIVING ADJACENT TO THE KIANG WEST AND BAO BOLON AREA.	USAID/Gambia	June 1994
11.	DETERMINE FEASIBILITY OF EXTENDING THE CONSERVATION AND DEVELOPMENT OF THE BAO BOLON INTO SENEGAL. ESTABLISH OF A TRANSNATIONAL BOLON BAO MANAGEMENT PLAN		

No.	Recommendation	Lead Agency	Target Date for Completion
a	Contact the Wildlife Conservation Society (a division of the New York Zoological Society) regarding lessons learned from the annual afro-montane forest regional workshops in central east Africa. Discuss opportunities for WCS, IUCN or WWF to facilitate a Gambia/Senegal Bao Bolon planning workshop in Dakar or Banjul.	USAID/ARTS/ FARA	May 1994
b	Meet with Senegal Wildlife Department to discuss opportunities for establishing a Bao Bolon transborder conservation area.	GOTG Dept. of Wildlife	September 1994
c	Hire a consultant team to assist in the development of a transborder management plan collaboratively with all parties concerned.	REDSO/WCA	October 1994
12.	DEVELOP MANAGEMENT SCHEMES FOR PEST OR WILDLIFE SPECIES FOR WHICH NATURAL CONTROLS MAY NOT EXIST IN THE GAMBIA. CONSIDER INNOVATIVE APPROACHES FOR PERIODIC CULLING OF PEST SPECIES (E.G. MILITARY ASSISTANCE, INCENTIVES TO HUNT IN AREA)		
a	Contact Mr. Andre De George (Development Assistance Corporation) regarding his experience with game management in Senegal and other countries in Africa.	USAID/ARTS/ FARA	May 1994
b	ANR project staff contact other countries to identify lessons learned in region. Consider integration of activity into present ANR program as appropriate.	USAID/Gambia	May 1994
13.	UNDERTAKE MAJOR PLANNING/SITING/DESIGN EFFORT FOR KWNP VISITORS CENTERS AND ACCESS ROADS. Sites should be developed to have good road access that bypasses village centers. Roads should be routed to avoid sensitive environmental resources.	LGRCT	June 1995

APPENDIX A: ASSESSMENT METHODOLOGY FOR ECOLOGICAL SURVEY

The team made use of a number of tools to assess the Bao Bolon area. Aerial photography and land use maps were obtained from the Department of Lands and Surveys in Banjul. The land use maps (1: 50,000 scale) provided detailed information regarding vegetation types and agricultural activities in the Bao Bolon area. (Please refer to Figure 1 for a map which identifies four ecologically significant areas and major ecosystems.)

In addition, the team developed field data sheets which addressed key topics regarding the ecology and use of the area surveyed. The topics covered in the field data sheets are indicated below.

- Description of habitat (e.g., canopy structure)
- Evidence of human utilization (e.g., roads, docks, fuelwood, fishing, agriculture, firewood)
- Relation of site to other ecosystems (e.g., mangroves provide detritus for lagoon ecosystems, wildlife corridors)
- Wildlife species observed

The team conducted field surveys of the Bao Bolon area closest to the Gambia River by canoe. Five bolons were surveyed which included:

(1) Katchang Bolon;

(2) Kisi Bolon;

(3) Tunku Bolon;

(4) Duntu Malang Bolon; and

(5) Mandori Bolon.

(The lower reaches of Bao Bolon were explored by canoe and the species observed recorded on the data sheet for Katchang Bolon.)

In addition, the team conducted field surveys of the Bao Bolon area north of the Gambia River by approaching from the trade road out of Farafenni. This area maintains higher human populations. A number of the same bolons surveyed along the Gambia

River were once again surveyed farther north (e.g., Bao Bolon). Five areas were surveyed in the north which included:

- (1) Katchang Bolon;
- (2) Konti Kunda Village;
- (3) Birong Kunda Village;
- (4) Dai Village; and
- (5) Illiassa Village

Information was obtained on each of the field data topics. For example, all birds and other wildlife species were identified and recorded for each area visited. In addition, information was recorded regarding the different ecosystems encountered and how these ecosystems might interact. Areas having more than one ecosystem were of particular importance to tourism, as they often provide a diverse array of wildlife and plant species.

Appendix B contains detailed information regarding significant ecosystems and species surveyed in the Bao Bolon.

APPENDIX B: ECOLOGY OF THE BAO BOLON AREA

B.1 MANGROVE ECOSYSTEM ECOLOGY

The Gambia River is one of three major West African rivers which have their source in the Fouta Djallon Highlands of Guinea, West Africa. From the Fouta Djallon Highlands, the Gambia River meanders along most of its 1,150 kilometer length through the savanna of southeastern Senegal and eventually empties into the Atlantic Ocean.

Until the construction of the east-west road along the south bank, the river was the primary means of transport for trade between eastern Senegal and western Gambia. The Gambia River remains an important means of transport for commercial goods along the length of the river communities (Webb, 1992).

The Gambia River's mangroves are one of its most prolific and important ecosystems. The word "mangrove" is used collectively to describe woody plants occupying tidal land in the tropics. However, mangroves may also be found in places lacking regular tides and may penetrate far inland to occur in virtually fresh water environments. The West African mangrove vegetation is relatively poor in genera and species compared with the East African coast.

The West African mangrove genera includes Rhizophora (Rhizophoraceae family), Avicennia (Avicenniaceae family) and Laguncularia (Combretaceae family). The same three genera also occur on the western side of the Atlantic Ocean. The West African mangroves have a rather limited distribution. Their northern limit is the Senegal River (Avicennia has been reported further north) and their southern limit is northern Angola (Lawson, 1986).

The five species of mangroves in The Gambia are Rhizophora racemosa, R. harrisonii, R. mangle, Avicennia africana and Laguncularia racemosa (Percival 1968). The mangrove ecosystem is the dominant ecosystem in the Bao Bolon area. Rhizophora racemosa, R. mangle and Avicennia africana are the three mangrove species found in this area.

Due to its extreme height, Rhizophora racemosa (Red Mangrove) is the most easily recognized. The Red Mangrove has the familiar stilt roots and aerial roots; there is also a mat of fine rootlets just below the mud. They are very important to The Gambia for providing riparian protection to the river and creeks (Percival, 1968).

The Red Mangrove grows along riversides into a tall tree up to 50 meters. Aside from its height, another distinguishing characteristic is the red midrib of its leaves. Its timber is valuable and is especially used for pilings in salt water. The Red Mangrove is a pioneer species appearing at the water's edge on newly deposited mud, but it is also the first species to disappear under human interference (Steentoft, 1988).

Rhizophora mangle (Dwarf Mangrove) and R. harrisonii are closely allied species in The Gambia but do not grow above 5 to 7 meters in height and favor areas less continually wet than R. racemosa. The Dwarf Mangrove has scented flowers and R. harrisonii is distinguished by its slender pointed flower-buds.

Avicennia africana (White Mangrove) seldom grows above 5 meters and prefers higher ground (less frequently flooded) to wholly inundated areas. It produces stilt roots and also a network of underground roots from which pencil-like breathing roots project upwards. The Red Mangrove tends to be confined to those parts of lagoons where their roots are regularly flooded by high water. However, the area behind the Red Mangrove, which may be flooded only by the spring tides at fortnightly intervals, is often dominated by the White Mangrove. The White Mangrove is useful for stakes and firewood (Percival, 1968).

Mangroves are one of the most important ecosystems in the tropics. They provide millions of people with firewood and timber, treat sewage and other wastes, and protect coastlines from erosion. They are often referred to as the "nurseries for sea life" (Coe, 1992). Leaf litter is quickly decomposed by bacteria, fungi, and other microscopic organisms in the water. The decomposed leaf litter provides nourishment for an assortment of marine animals (Ricciuti, 1982). For example, most fish and shellfish live and feed in the mangroves during some portion of their life cycles, which is why they are so important to fishermen (Coe, 1992). Mangroves also provide shelter for many other forms of life. Their extensive root systems provide habitat for many attaching organisms such as barnacles, oysters, sponges, and algae. Mangrove trees also provide nesting sites for many species of marine birds (Institute of Marine Science, 1993).

Compared to East Africa, where there is considerable exploitation of mangrove poles for building and other purposes, the West African mangroves have been relatively undisturbed by human activity. Mangrove areas are sometimes used for rice production. White Mangrove areas are preferred by farmers for rice production, as the soils in Red Mangrove areas often have a very low pH. In addition, there are various oyster-growing and fish-pond projects along several part of the West Coast (Lawson, 1986).

In the Bao Bolon area, mangroves are used by local communities for building poles and firewood. Mangroves have also been used to a limited extent for fence posts and roof rafters (Checchi & Company, 1981). In addition to the mangrove ecosystem's importance as a source of fish protein, the rural communities collect oysters which are attached to the mangrove's stilted roots. The assessment team also observed Osprey and River Eagle nests in Red Mangrove trees on numerous occasions.

The essential environmental roles which mangroves play have been recognized by a number of government agencies world-wide. In the United States, the Florida Committee on Rare and Endangered Plants and Animals classifies both Red and Black Mangroves as

"species of special concern" due to their unique ecological importance (Institute of Marine Science, 1993). Consequently, special permits are required for development plans in Florida which could have a negative impact on mangroves. When plans call for the destruction of mangroves, developers are required to restore the ecosystem. However, mangrove ecosystem restoration is not simple. Attempts to plant new mangroves have often been unsuccessful and more research is needed on the subject (Coe, 1992).

Human activities can also damage mangroves indirectly. Oil pollution and muddy water can clog the pores which mangrove use for respiration. Landfills and other construction can also block the daily tidal flows which are essential to the life of the mangrove. In developing countries, mangroves are often destroyed due to excessive removal of branches for firewood.

B.2 OPPORTUNITIES FOR SUSTAINABLE MANGROVE UTILIZATION

B.2.1 Tropical Shelterwood System and Artificial Regeneration

Silvicultural forest management techniques could be considered by the Government of The Gambia (GOTG) to provide rural communities in Bao Bolon area with a sustainable source of fuelwood.

Due to the ability of the mangrove species to regenerate themselves through their viviparous seeds (particularly the Red Mangrove), the Tropical Shelterwood System has been adopted in Malaysia and Nigeria. This system involves the gradual opening of the forest canopy to induce natural regeneration and to guide the development of previously established seedlings. In its simplest form, strip felling of mangrove trees is conducted to enable seeds from the adjoining seed-bearing trees to germinate and colonize the felled area.

Alternatively, artificial regeneration of mangroves species can be undertaken by raising the seedlings and planting them in plantations. This method is being used to establish trial plantations of Red Mangrove in Nigeria (Adegbehin and Nwaigbo 1990). In felling and regenerating mangrove forests naturally or artificially, it is important that the principle of sustained yield is applied to prevent over-cutting.

B.2.2 Fishpond Operations

The mangrove ecosystem is very suitable for fishpond operations. Tidal fluctuations in mangrove areas can be utilized for the water supply and drainage system, with the pond-bottom elevation and the dike heights being determined by the tidal range.

Aquaculture (creating artificial pond systems to raise specific marine or brackish water organisms) is being undertaken in Nigeria at the subsistence level by private individuals and

at the experimental level by the government. The total aquaculture production in Nigeria has been estimated at 7,500 tons annually (Adegbehin and Nwaigbo, 1990). In Indonesia, about 1.2 million hectares of the mangrove area (15 percent of the total mangrove zone) have been developed into aquaculture industries. This has created additional employment opportunities, generated additional revenues, and increased the animal protein output (Rabanal, 1977).

Site selection is the most critical factor, because it closely governs the cost factors associated with land clearing, pond construction, water exchange, and water quality. However, the mangrove ecosystem is nature's own aquaculture system; it is vastly more stable and less susceptible to disease. The ultimate aim of the mangrove ecosystem manager is to develop successful aquaculture methods that have minimal impact on the ecosystem through compatible use strategies (U.N. Food and Agriculture Organization, 1984).

B.3 DESCRIPTION OF ECOLOGICALLY SIGNIFICANT AREAS IN BAO BOLON AND ADJACENT WETLANDS

Four sites visited in the Bao Bolon area were identified as having significant biological importance relative to other sites visited. Both biological and tourism accessibility of the sites were considered. Figure 1 presented earlier in Section 1 of this study indicates the locations of the four sites. Table B-1 following describes the species present at these sites.

Table B-1. Description of ecologically significant areas in Bao Bolon and adjacent wetlands

Site	Bao Bolon South (Site 1)	Tunku Bolon (Site 2)	Duntu Malang Bolon (Site 3)	Bao Bolon North (Site 4)
Location	Near Katchang village on Katchang Bolon	Near Tunku village on Tunku Bolon	Near Duntu Maiang village	At the intersection of the northern Gambia national highway and the Bao Bolon
Description	Savanna-woodland, grassy mudflats, and mangroves	Red and White Mangrove forests and herbaceous steppe habitats	Red and White Mangrove forests, herbaceous steppe, and savannah-woodland habitats	Large, open marshlands. Bolon is 2-3 km wide at this point.
Communities present				
Mangrove ¹	•	•		
Barren flats ²	•	•	•	
Grass savanna ³	•	•	•	•
Riparian savanna-woodlands ⁴	•			•
Agricultural tree savanna ⁵	•			•
Shrub and tree savanna ⁶		•		
Herbaceous Steppe ⁷			•	•
Savanna-Woodlands ⁸			•	
Birdlife				
Reef Heron	•			
Senegal Long-Tailed Parrot	•			
Little Egret	•		•	
White Necked Stork	•	•	•	

Site	Bao Bolon South (Site 1)	Tunku Bolon (Site 2)	Duntu Malang Bolon (Site 3)	Bao Bolon North (Site 4)
Senegal Kingfisher	•			
Hammercop	•		•	
Morning Dove	•	•	•	
Squacco Heron	•			
Little Bitten	•		•	
Goliath Heron	•			
Pied Kingfisher	•	•	•	
Great White Egret	•			•
White Headed Stork	•			
Spur Winged Plover	•		•	
Senegal Wattled Plover				•
Night Heron	•			
Swallow-Tailed Bee Eater	•			
Amethyst Starling	•			
Gray Heron	•			
Bee Eater	•			
Ground Hornbill	•		•	
Red Beaked Hornbill			•	
Black and White Hornbill				•
River Eagle	•			
Giant Kingfisher	•			
Wood Ibis	•			
Pinked-Backed Pelican	•			
Malachite Kingfisher	•			
Little Stint	•			•
Blue Breasted Kingfisher	•			

Site	Bao Bolon South (Site 1)	Tunku Bolon (Site 2)	Duntu Malang Bolon (Site 3)	Bao Bolon North (Site 4)
Hartlaub's Ducl.	•			
Marabou Stork	•			
Little African Swift	•			
Village Weaver	•			
Common Sandpiper	•		•	
Long-tailed Glossy Starling	•		•	
Rufous Crowned Roller			•	
Red Tailed Bussard			•	
Black Kite			•	
Senegal Bussard			•	
Buffalo Weaver			•	
Sacred Ibis			•	
Red Shank				•
Osprey		•		•
Other Wildlife				
Green Vervet	•			
Crocodile	•			
Duiker	•			
Monitor Lizard	•		•	
Spotted Hyena			•	
Baboon				•

¹ Mangrove community. Principal species of trees and shrub include Rhizophora racemosa, R. mangle, Avicennia africana.

² Barren flats. Principal species include Sesuvium portulacastrum, Sporobolus spicatus, Paspalum vaginatum, Diplachne fusca

³ Grass savanna. Principal species of grasses include Phragmites karka, Echinochloa pyramidalis, Cyperus papyrus

⁴ Riparian and Fringing Savanna-Woodlands and Woodlands. Principal species of trees include Daniellia oliveri, Pterocarpus erinaceus, Terminalia albida, Parkia biglobosa, Bombax costatum. Principal species of shrubs and small trees include Ficus ssp., Piliostigma thonningii, Terminalia avicennoides, Anthostema senegalense, Nauclea latifolia. Principal species of grasses include Andropogon tectorum, A. gayanus, Beckeropsis unisetata, Pennisetum subangustum

⁵ Agricultural tree savanna. Principal species of trees include Cordyla pinnata, Pterocarpus erinaceus, Parkia biglobosa, Ficus ssp., Adansonia digitata. Principal species of shrubs and small trees include Acacia macrostachya, Heeria insignis, Icacina senegalensis, Guiera senegalensis, Cassia sieberiana. Principal species of grasses include Pennisetum pedicellatum, P. subangustum, Eragrostis tremula, Andropogon gayanus.

⁶ Shrub and tree savanna. Principal species of trees include Mitragyna inermis, Acacia seyal, Borassus aethiopicum, Piliostigma ssp., Anogeissus leiocarpus. Principal species of grasses include Brachiaria fulva, Paspalum ssp., Schizachyrium ssp., Andropogon gayanus.

⁷ Herbaceous steppes. Principal species of grasses include Paspalum vaginatum, Diplachne fusca

⁸ Savanna-Woodlands. Principal species of trees include Mitragyna inermis, Pterocarpus erinaceus, Terminalia ssp., Khaya senegalensis. Principal species of shrubs and small trees include Mitragyna inermis, Securidaca longipedunculata, Combretum ssp. Principal species of grasses include Andropogon ssp., Pennisetum ssp., Schizachyrium spp.

APPENDIX C. BAO BOLON MANAGEMENT PLAN GUIDELINES

USAID/Gambia and the Gambia Wildlife Department have experience in the development of protected area management plans (e.g., Kiang West National Park Management Plan). It would therefore not be appropriate to provide general guidance on this subject. However, there are two important elements which should be included in any future management plan which is designed for the Bao Bolon area:

- (1) environmental impact guidelines and associated legislation for tourism activities; and
- (2) environmental impact monitoring.

C.1 ENVIRONMENTAL GUIDELINES FOR TOURISM CONCESSIONS

A tourism concession operation program should be established in order to regulate the use, occupancy, and development of national lands. These lands are often set aside for recreation and commercial purposes through a commercial lease. The goals of a tourism concession operation program in The Gambia would be to provide:

- (1) fairness and a stable administrative environment for concessioners;
- (2) a fair market value and reimbursement of costs to the GOTG;
- (3) public safety and health to the public; and
- (4) an assurance that tourism facilities and services offered to the public are satisfactory.

The above goals should be monitored through periodic concession inspections. The information obtained from concession monitoring should be used as a basis for the GOTG to determine whether to continue or terminate a land concession authorization. The information would also be used to determine whether or not a concession should be approved to build or operate additional facilities within current lease boundaries.

A concession application which is submitted to the GOTG should include specific information regarding the implementation and monitoring of the concession activity. The GOTG, private sector, tour guides/interpretive workers, nongovernmental organizations (NGOs), donors, and local communities should agree on information and restrictions which should be included in a tourism concession contract.

A tourism concession operation plan and implementation guidelines should be

developed in order to establish standards for concession operations. Guidelines are a fundamental communications tool to reduce visitor impacts. If a protected area has a concession system, requirements can be established through a contract before a tourism business is allowed to operate in the area. If there is no concession system, the management of tour operations, lodges, and all other private enterprises surrounding the area can best be prevented from causing negative impacts by providing guidelines that are as specific as possible (The Ecotourism Society 1993).

C.1.1 Three Steps to Developing a Tourism Concession Plan

There are three essential steps in the development of a tourism concession plan. These steps include:

- (1) establishing the goals and land use zone restrictions of protected areas (e.g., research areas, tourism areas, preservation areas);
- (2) developing guidelines for visitor behavior and use (e.g., campgrounds, hiking, boating); and
- (3) establishing official regulations from the guidelines (this requires adequate enforcement personnel and researchers to make recommendations which are supported by field data on specific visitor impacts on soils, water, endangered species and habitat).

Below are some key points to consider when establishing a set of guidelines:

- Decide who is the primary audience for the guidelines (e.g., general visitors, tour operators, user groups).
- Identify the theme or key thrust of the guidelines (e.g., environmental protection or increased cultural awareness).
- Consult with guides who lead tourists into target areas.
- Obtain technical assistance from scientists who have studied tourism's impact.
- Gather all the partners concerned around the table. Form a committee which may include residents, resource managers, guides, commercial operators, lodge owners, service personnel, and local vendors.
- Use guidelines from other areas as a model.

- Set objectives and formulate a way to evaluate whether the objectives have been met (e.g., a decreased level of animal harassment or trail erosion).
- Develop a draft document which can be reviewed by the technical specialists.
- Create a distribution plan for the guidelines document (The Ecotourism Society, 1993).

Once the three steps above are completed, a standardized tourism concession operational plan can be established for use by the private sector tourism operators. Table C-1 following provides a suggested outline of the elements which should be considered in a tourism concession operational plan (Bureau of Land Management, 1993).

In addition to establishing guidelines for private sector concessions, guidelines should also be developed for tourists. These guidelines are a genuine service for visitors who need and usually appreciate information on how to behave. Much of the environmental and cultural damage caused by tourists is due to a lack of information and understanding.

National legislation should be established which provide a broad legal framework for the tourism concession operation program. The International Union For The Conservation of Nature maintains an office in Bonn in the Federal Republic of Germany which specializes in environmental law and assessment.

Table C-1. Suggested Tourism Concession Operational Plan Outline

I. Brief Description of Concession Size and Facilities

II. Visitor Management

A. Rules and Regulations

1. Storage areas
2. Vehicle and boat parking
3. Roads and traffic
4. Beach and boat use
5. Day use
6. Length of stay
7. Number of people

III. Facility Management

A. Hours of Operation

1. Yearly
2. Seasonally
3. Weekly
4. Holidays

B. Reservation and refund policy

C. Services

1. Scope
2. Quality
3. Rates
4. Public comments

D. Safety and Sanitation

1. Inspections by concessioner
2. Signs
3. Garbage
4. Fire detection
5. Fire suppression (e.g., equipment alarms, employee awareness)
6. Accident reporting

Table C-1. Suggested Tourism Concession Operational Plan Outline (con't)

IV. Staffing and Employment Practices

A. Number of employees

B. Training

V. Public Information

A. Signs

B. Literature

C. Advertising

C.1.2 Additional Sources of Information

A Code of Ethics For Tourists. Ecumenical Coalition on Third World Tourism, c/o Center For Responsible Tourism. P.O. Box 827, San Anselmo, California 94979. (415) 258-6594.

Code of Birding Ethics. National Audubon Society-Western Regional Office, 555 Audubon Place, Sacramento, California 95825. (916) 481-5332.

Ecotravel Principles and Practices. Wildland Adventures, 3516 N.E. 155th Street, Seattle, Washington 98155. (206) 365-0686.

Ecotourism: The Potentials and Pitfalls. World Wildlife Fund. Washington, D.C. (202) 293-4800.

C.2 ENVIRONMENTAL IMPACT MONITORING

As suggested in the recommendations section of this report, it will be important to establish an environmental impact monitoring program for tourism and rural development activities in the Bao Bolon area. While the present tourism activities appear to be having limited negative environmental impacts at present, there is no way of determining present or future impacts without an appropriate baseline survey and additional periodic surveys.

Some suggestions regarding environmental monitoring are provided below.

- Identify lessons learned from other countries in Africa regarding environmental monitoring for protected area tourism (e.g., 1987 USAID-funded Maasi Mara study in Kenya).
- The government of The Gambia does not yet have the capacity to undertake the monitoring of protected area activities. In the long term, however, it will be the GOTG which will ultimately be responsible for monitoring its conservation and development activities. With this in mind, the Mission should include GOTG counterparts in any projects involving community development and environmental assessment activities. This experience will strengthen the Gambian capacity.
- Environmental monitoring could be included as an explicit component of USAID's Agricultural and Natural Resources (ANR) program, which is working to improve agricultural productivity while fostering stewardship of natural resources. The ANR program operates both by making direct grants, and grants to NGOs, and by coordinating the activities of private voluntary organizations (PVOs). Grants from the ANR program could require NGOs to include environmental monitoring training and additional staff.

The NGOs can play a key role by integrating environmental concerns into the initial NGO concept papers and proposals. The Africa Bureau's Environmental Guidelines For PVO/NGO Field Use In Africa (1993 revised) addresses NGO responsibilities for monitoring and evaluation as follows:

The PVOs/NGOs involved will be fully responsible for monitoring and evaluating all activities under each grant, and for sending to the Bureau and/or Regional Environmental Officer any evaluations, reviews, and/or mitigation plans. By planning for monitoring and mitigation in project designs, planners can assure that funding will later exist for such activities.

USAID Mission staff can enhance the efforts of NGOs to monitor impacts by:

1. standardizing NGO field methodologies;
2. identifying lessons learned from NGO activities regarding positive and negative environmental impacts (e.g., NGO workshops); and
3. communicating how environmental concerns are to be integrated into the design of NGO proposals.

One advantage of providing funding for environmental impact monitoring in NGO grants is that the NGOs will have financial resources available to hire additional staff to conduct monitoring activities. In the past, monitoring and evaluation has often been seen as a burden which is conducted "as time allows."

The Gambia Environmental Action Plan (GEAP) (1992) provides steps for the development of a national natural resources monitoring plan. The recommended steps are also appropriate for the development of a monitoring plan for the Bao Bolon area. Below are the GEAP recommendations which have been modified for the conditions of the Bao Bolon area.

- Recruit a natural resources and environmental monitoring consultant.
- Evaluate existing environmental and natural resources data sources in the country and their adequacy for natural resources and environmental management planning.
- Identify suitable parameters (e.g., pollution, soil erosion, plant cover, water quality, use of resource by rural communities, number of tourists) and associated impact indicators.
- Design an appropriate baseline survey of elements to be monitored under the program.

Provide training for in-country staff or procure a long-term monitoring/information systems advisor.

APPENDIX D: TOURISM ASSESSMENT

(DRAFT)

HISTORICAL CONTEXT

Although not recorded by historians, the geology of the Gambia River Delta suggests that it shares a biological genesis similar to other wetlands, where evolutionists believe that some forms of sea life became terrestrial. By the late Classical period, The Gambia was well-known as a sophisticated and cosmopolitan civilization with navigable waters connecting Banjul with Cairo. Clearly, The Gambia has an extraordinarily rich cultural and biological history.

The colonial period exposed it to the eye of Europeans who mistakenly took the local residents as primitives, although they had long before embraced the Koran and other highly civilized socio-cultural practices. The Gambia recently gained its political independence but is still struggling to release itself from a century of economic dependence on European powers.

The "divide and conquer" strategy of the colonial powers has left behind a difficult legacy to overcome. The Gambia is in the process achieving greater regional cooperation. At the same time it is carving out new alliances more appropriate to The Gambia's national interest in the coming millennium. Fortunately, by African standards it enjoys an exceptional political stability owing to its long-standing balancing of internal forces, embodied by competing political parties, and a professional civil service modelled on the British system.

RECENT EVENTS

The Gambia still enjoys a large measure of its original bio-diversity. However, population pressures in The Gambia and neighboring countries have resulted in deforestation. This has produced losses of habitats and their associated species. Gradual climatic changes have accompanied the process of erosion and water retention in the soil, accelerating the process of salinization of the watershed, which in turn has altered the former natural system. Although some species may have been able to adapt to these gradual changes, others have not.

In this respect The Gambia shares some of the same problems that confront much of the world, although to a lesser degree, so far. Fortunately, a greater environmental awareness

is emerging world-wide. Although we may be witnessing the dawning of a new age of environmental enlightenment, it is still premature to speak of an environmental renaissance. Even among the self-proclaimed environmentalists, the vast majority speak of conservation and preservation rather than progress and development, apparently content to maintain the status quo rather than repair past damage while seeking to benefit man in harmony with nature.

Through the Banjul Declaration of 1977, The Gambia became a world pioneer in committing itself "to conserve for now and posterity as wide a spectrum as possible of our remaining fauna and flora." More recently, in the context of international funding operations aimed at wildlife/bio-diversity conservation and sustainable development/resource management, The Gambia has set aside Kiang West National Park (KWNP). The park, bounded on the north by The Gambia River and on the other sides by legal delimitations, occupies a far less ambitious area than that recommended by the British Overseas Development Authority in 1972-1974

The USAID Biodiversity Support Program has provided seed money to assist park development while comprehensive planning studies are undertaken. Previous technical assistance missions in 1990 and 1992 were limited in scope, but provided an essential basis for establishing a start-up budget and action program. These missions identified ecotourism as an important contribution to sustainable development.

THE CURRENT SITUATION

The Gambia is favored with a variety of tourism assets including its climate, beaches, river, and natural flora and fauna. Its population is exceptionally hospitable and tolerant of behavior by tourists which might be offensive to local residents.

The Gambia has been engaged in the tourism industry since the 1960s. Although reliable statistics are unavailable, it is evident that visitor arrivals stagnated in recent years and the product has deteriorated due to poor financial returns and deferred maintenance. On the other hand, the hotels anticipate a busy 1993-94 high season and may even have a serious overbooking problem. Furthermore, with only about 2500 hotel rooms, The Gambia lacks the critical mass to be taken very seriously as a tourist destination at this time. The Gambia suffers from an almost total reliance on low-cost charter airlines for visitor access, making it difficult to attract more up-scale tourists. The institutional structure of the tourism industry is weak both in terms of government agencies as well as private sector associations. General statements about the desired direction of tourism development have not been translated into a clear and comprehensive set of policies, nor is there a strategic action plan for tourism at the national level, although a symposium held in 1991 identified many of the opportunities and constraints.

Therefore, the present ecotourism initiative for the Kiang West National Park cannot merely insert itself into a national policy and planning framework. On the other hand, the success of the park will depend precisely on this broader perspective, although no attempt will be made to outline a nation tourism development strategy and action plan in this report.

One factor stands out as paramount in developing a vibrant ecotourism product, namely air access. Unless a variety of scheduled airlines can be attracted to operate direct flights to The Gambia from diverse points of origins, ecotourism development will be minimal. Fortunately, Banjul is well located to serve as a hub for travel within West Africa for business and pleasure travellers arriving from Europe and the Western Hemisphere. Translation of this potential into a reality should be one of The Gambia's principal national objectives.

OBJECTIVE OF THE CURRENT MISSION

The present mission is to assess the importance of annexing the region on the north bank of Gambia river facing park and to define its approximate extension. This has required not only visits to KWNP and the north bank region denominated as Boa Bolon, but also limited inspection of neighboring regions in order to better understand the context in which the KWNP and its proposed extension lies.

EXECUTION OF THE MISSION

The consultants conducted 11 days of field work up-country accompanied by various Gambian government officials, in addition to extensive meetings, interviews, and research in Banjul. Despite the limited time, cooperation of the public and private sectors has allowed the consultants to draw upon their experience to reach certain conclusions.

FIRST CONCLUSION

One of first conclusions of this report is that the three government agencies most directly responsible for implementation of the Kiang West National Park are grossly underfunded and staffed, namely:

Department of Wildlife

Department of Community Development

Department of Tourism

Therefore, this report will be unusually brief, since it would be inconsistent to burden them further with a lengthy report outlining a plethora of well-intentioned actions which they are ill-equipped to implement. The Department of Wildlife in particular is devoting very appropriately its principle resources to "putting out fires" through a prevention and logistical program.

Implementation of the current USAID-funded program is going at a slow but steady pace and has been generating numerous jobs in the region. An environmental education program is underway, staffed by a Peace Corp volunteer.

The priorities for community development are currently being evaluated. However, additional studies will be required to determine what would be the most appropriate roles of different communities and individuals in the emerging ecotourism product.

The Department of Tourism has properly awaited definition of environment constraints before proceeding with any promotional activities which might produce premature pressure for opening up the park for extensive tourist utilization. The private tourist sector is not currently relying on the Kiang region as a principal destination and has many other options. Therefore, there are no unreasonable expectations emanating from the private sector tourism industry, possibly as contrasted with the local villagers.

This gives us the liberty to plan carefully and profit from the mistakes of others. The urgency lies in the progressive deterioration in the human and ecological condition until effective remedial measures are taken. Therefore, the necessarily lengthy long-term planning process must be accompanied by immediate short-term actions.

Although these short-term considerations should not jeopardize long-term **sustainable** development, they are essential to providing a proper foundation for future development. The quality of the overall tourist product must be improved from its currently degraded condition, if The Gambia hopes to attract the type of visitors and investors desired to consume its ecotourism product. The potential ecotourist will not just visit the Park, but will use the airport facilities, beach hotels, and a host of other tourist services

GENERAL CONCLUSIONS

The Kiang West National Park and Boa Bolon extension offer extraordinary potential as kick-off for ecotourism in the Gambia. The Gambia in general and the park in particular offers a tremendous potential for a variety of outdoor recreational activities and communing with nature. Depending on evaluation of their environmental impact, these include star-gazing, waterskiing, sportfishing, scuba diving, bicycling, hiking, swimming with manatees and dolphins, and observation of a vast array of animal and plant wildlife, to mention only a few of the opportunities. Although best known and superb, birdwatching is not the only potential

interest of visitors to the park.

The ideal would be to achieve a balance between tourists of differing expenditure levels, since the entire range is possible, provided the resource is not degraded and proper material and human infrastructure developed. This, however, will require very extensive and highly specialized research and planning over a period of many years.

The Gambia's geographical position (i.e., its proximity to Europe and North America) and environmental characteristics (biodiversity of several interrelated ecosystems) would make it an appropriate location for a major theme park dedicated to the ecology of the West African region. Such an undertaking would inevitably need to be planned and financed by the private sector. The success of such a theme park would depend on the highly creative presentation and interpretation of the natural environment and its enhancements. However, the feasibility and desirability of such a project remains to be demonstrated more convincingly and would require extensive additional study. Initial contact could be made with potential theme park developers.

The Gambia has the potential to target a broad range of tourists provided it offers the necessary facilities and services. The specific ecotourism product would complement more general tourism oriented toward its beaches or to ethnic and cultural attractions. The Gambia's proximity to neighboring French- and Portuguese-speaking countries adds further opportunities for tourists to experience diverse West African cultures.

The Gambia and its neighboring countries could seek to create a unique market image, quite distinct from East Africa. The Gambia could compete more with destinations such as the Amazon, Costa Rica, and the Galapagos Islands. However, if the concept of a theme park materializes, then the market would necessarily broaden. Popularizing interest in the environment without vulgarizing it is an important part of assuring that the present interest in the Gambian ecology is not just a passing fad.

Developing these markets will first require the creation of new products. Many of the existing facilities and services can be upgraded, but the owners may nonetheless choose to continue with their traditional clients. Unfortunately, many of the existing players have neither the ambition nor the imagination to develop new products, so new investments will be required. Outlining of a comprehensive marketing program to attract these investments is well beyond the scope of this report.

PRINCIPAL RECOMMENDATION

The principal recommendation of this report is a mobilization of the forces required to undertake a truly comprehensive, in-depth study of the Kiang West National Park and its possible extension. Such a study, which would be comprised of many separate components,

would need to look at Kiang West in the larger context of The Gambia and West Africa, and not merely focus on the park itself.

Numerous approaches to funding these studies are possible, depending on the degree of private sector participation in the planning, development, and operation of the park itself. Multinational funding will be both necessary and desirable, and most likely to come from those nations whose citizens are most likely to be visitors to the park: Western Europe, the United States, and Japan. Also, many private corporations such as American Express, Nikon, and The Coca-Cola Company could be enticed to make contributions either in cash or in kind in order to link their product or service to the positive image of ecotourism, and to the Kiang West National Park in particular.

Until more in-depth and professional work can be undertaken, it would be imprudent to make more specific recommendations regarding such issues as the extension of the park boundaries to include the Bao Bolon region and internal planning of the existing Kiang West National Park. Furthermore, preliminary recommendations often risk being misconstrued as definitive plans.

It is unrealistic to propose a detailed long-range action plan until more is determined regarding the institutional arrangements and the level of resources. However, short-term actions are recommended in order to minimize further environmental degradation and enhance the long-term development prospects.

The following interim measures are recommended until the proper institutional framework is established:

- Do no additional work on cutting boundaries and roads at Kiang West since they may destroy habitats and are apparently not effective for fire control anyway. However, other efforts to protect the park and villages from fire should not be suspended.
- Install an advanced (state-of-the-art) communication system linking Kiang West, Abuko, Tanji, park rangers, and tourist facilities (Kemoto & Tendaba) and services (various ground/boat operations)
- Complete the temporary park headquarters as a research and planning center for logistics support and fire control center, etc., but not as a tourist reception center. It would serve as a reception center for donor organizations visiting the park.
- Limit tourist access to be requested on a case-by-case basis with full discretionary power given to the park warden given the currently inadequate basis for establishing rules and regulations. The competence of the park's warden and his team of advisors merits this level of confidence in their judgement.

- Provide a small team of tourism experts to assist the hotel and tour operators in the Kiang West region to improve their facilities and services to maximize income and employment generation and minimize the adverse image which a poor initial product would generate. Ideally, a "crash" technical assistance project would be mobilized immediately in order to take advantage to the coming 1994-95 high tourist season.
- Prepare a professional slide presentation explaining the objectives of the Gambia Ecotourism Project, including Kiang West/Bac Bolon, Abuko, and Tanji Parks as a means to recruit key players for establishment of a trust, and for donor support in general.
- Encourage the private sector to undertake a study to assess the feasibility of developing Banjul as a West African air hub (cargo/passenger).

FINAL REMARKS

MARKETING

Marketing strategies and efforts should project the following points:

- The Gambia is different. The Gambia should disassociate itself from the problems of Africa without disassociating itself from the continent.
- Project an upscale ecotourism image.
 - Give cache to the name "The Gambia". This adds value not only to The Gambia's tourism product, but to all other export products, including fresh and dried flowers, groundnuts, shrimp, etc.
 - Such an image requires consistent improvement in quality of facilities and services. Technical assistance (e.g., by professional consultants, Peace Corps, volunteer service organizations, and International Executive Service Corps volunteers, exchange programs, etc.) can be focused on this issue.
 - Quality improvement will require new investment. The stable and friendly climate for investment can be emphasized as an asset to attract capital and the know-how necessary to develop ecotourist infrastructure. The National Investment Board (NIB) can contribute to this through its FAPE program.
 - Quality of service must accompany physical improvements, requiring training of new and existing managers and employees in the tourism industry.

Emphasis should be given to on-the-job training and training of trainers.

CONSEQUENCES OF DELAY

There is a limited window of opportunity to "catch the ecotourism wave". There also exists risk of premature international publicity of The Gambia's environment product.

Every day is a day in the life of a child.

PARTIAL LIST OF PERSONS CONSULTED/INTERVIEWED

NAME

TITLE/ACTIVITY

GAMBLIAN GOVERNMENT

Sarjo K. Touray	Minister of Natural Resources
Alkali J. Gaye	Minister of Information and Tourism
Shuliman Samba	Deputy Permanent Secretary of M. of Natural Resources
Ebraima Manneh	Permanent Secretary of M. of Information and Tourism
Almamy Camera	Director of Dept. of Wildlife Conservation
Alpha Jallow	Dept. of Wildlife Conservation/ Kiang West Park Warden
Mamanding Kuyateh	Department of Community Development
Tamsir M'Bye	Commissioner of Lower River Division
Alkali Conteh	Acting Director of National Tourism Office
Jani	Land and Surveys Department
Momadou Kassama	School Teacher. Sofanyama

INTERNATIONAL TECHNICAL ASSISTANCE COMMUNITY

Andrew Winter	U.S. Ambassador to the Gambia
Bonnie Pounds	USAID Director
Gary Cohen	USAID official--natural resources
Adam Saffer	USAID official--private sector
Theodore Lienhart	U.S. Embassy official
Wayne Nishek	U.S. Peace Corp Country Director
Charles Hamilton	U.S. Peace Corp Volunteer
Kevin	U.S. Peace Corp Volunteer

Stephen Wade	National Investment Board/FAPE Nathan Associates
Muhamet B. Faal	National Investment Board/FAPE Project, Sr. Project Assistant
Daniel F. Hogan III	Development Alternatives, Inc
Erwin M. Pari	Resident Engineer, TAMS—roads
Robert Collingwood	Resident Representative, European Union (EU)
Anthony A. Davis	Director, Abt Associates
Svend Ole Kvilesjo	Norwegian 4H Volunteer
Lee	Caanan Technical Institute

GAMBIAN-BASED PRIVATE SECTOR

Sarjo Touray & Ante	Owners/Managers, Tendaba Camp
Salvador	Owner, Kemoto Hotel
Kim	Owner's son/tours--Kemoto Hotel
Nabil Lamarty	Hotel Manager, Kemoto Hotel
Peter Lorson	Owner, Gambia River Excursion
Pap Jallow	Director, Gambia River Excursion
Hassan Badkan	Operations, Gambia River Excursion
Sammy Lai Mboje	Managing Director, Gambia National Tours (GAMTOURS); Badala Park Hotel
Aziz B. Khan	Managing Director, Black & White Safari; Baccous Restaurant
Patrick Sothern	Managing Director, West African Tours
Francis Mendy	Operations Controller, West African Tours
Moudou Faux	Chief birding guide, West African Tours
Clive Barlow	Orthinologist, birdwatching guide
John Carlin	General Manager, Hotel Atlantic; President of hotel association
Alieu Badara Njie	General Manager, ETecotours
Daniel Van Raemdonck	Director, Paradise Tours
Yvonne Abrahams	The Gambia Experience—tour operator
Albert H. Kuyer	Resident Manager, Senegambia Beach Hotel
John Saunders	Crocodile Safari Tours Captain. M/S Beatrice Purser, M/S Beatrice
Karen Clark	Marketing, Kololi Beach Hotel
Michael Carr	Restaurant Manager, La Scala Restaurant, Kololi Beach Hotel
Marianne Martens	Weinstube Restaurant & Bar

Moudou	Beach Bar Badala
Alan Wilkins	Juice Bar, Kololi Market
Malick Colley	Tourist Taxi Driver
Carolin Stegmann	Kairaba Hotel--Public Relations
Anna Samba & Daughter	Fashion Show Organiser/Seamtress
Alie M Secka	Specialized Silver

INTERNATIONAL-BASED PRIVATE SECTOR

Lisa Edwards	E-Z Tours, U.S. tour operator, USA
George Alsberg	Tour Arrangements Inc., U.S. tour operator, USA
Martin Reid	Martin Reid Tours, birdwatching tours, USA
Gina Garafalo	Butler Travel Associates, USA
Albert Gomes	Arthur Consulting Group; Financial Consultant for EuroDisney, USA
Eric C. Morel	Export Manager, Fuji Hunt Photographic Chemical, Belgium
Rainer Josel	Owner, Ivory Tours, Germany
Dieter & Gabriela Hutte	Tourists; Manager, Hutte & Co. GMBH, Textilimport, Germany
Ingo Blondal	US Travel America, USA
Michele Revoir	Forum International Marketing, USA
John & Pauline Moore	International Investors, England

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APPENDIX E

COMBINED REVIEW OF THE KWNP ACTIVITY APPRAISAL AND THE BAO BOLON SOCIAL HUMAN DIMENSION REPORT SUBMITTED BY MAMANDING KUYATEH - SOCIOLOGIST

Within the framework of the Kiang West National Park (KWNP) and the objectives and experiences gained there, this study focuses on the Northern Bank adjacent to the KWNP, referred to as the Bao Bolon. The area is composed of the village communities of Illiassa, India, India Katchang, Conteh Kunda N'Jie, Birang Kunda and Duntumalang.

The purpose of the survey is to look into the community approach and experiences of the Southern Bank and KWNP, with the view of bringing to light strengths, weaknesses, opportunities, and threats available for possible use in the Bao Bolon.

The approach here involves a review of the experience gained, since the success of the programme would depend highly on its social acceptability. For this purpose it was agreed to create a forum through which there would be an interface between park management and communities based on the following reasons:

- Most park management decisions would have some direct or indirect effect on the inhabitants of the park periphery.
- Except for the enforcement of wildlife conservation regulations, the Department of Wildlife has no authority over areas bordering the park area.
- The multi- and pluri-disciplinary nature of the programme would require the involvement of NGOs and other Government Agencies/Agents operating in the area in joining the community to ensure people oriented management of the park surroundings which would constitute the private sector.

In light of the above considerations, it was agreed to establish a Technical Advisory Committee (TAC) to be responsible for identifying critical issues and needs and making recommendations. The idea was to make the TAC the cross roads linking park management staff extension workers and villagers through their representatives. It was further expressed to institutionalize bi-monthly meetings of the TAC to be initiated by the Park Senior Management. The objectives of these TAC meetings were "to facilitate discussions of needs, concerns and issues pertaining to park planning and park management under the auspices of National Agency for Conservation and Development." By such arrangements, it was hoped that the private sector, particularly the communities, could express their views whilst being abreast of new initiatives on the park. However, the success of such forum was said to be highly dependent on the capacities and capabilities of the Park management to initiate, lead, and organise.

The Park Management team is lead by a Grade 6 Civil Servant, with a deputy Grade 6 "Junior", two Peace Corps Volunteers (PCVs) and other workers, such as guards and skilled, semi-skilled, and part-time laborers. The former category of staff with the support of two aging vehicles attempted their roles.

ACHIEVEMENTS: Bi-monthly meetings are held between Park Management and villagers on a rotating basis as planned. Indeed since last year at least six such meetings were held.

- Each of the five villages has two members to represent them to the TAC.

LIMITATIONS:

- The meetings did not include extension agents (Government or NGOs) operating in the area; therefore full TAC composition was not met.
- Village representatives do not know their role due to lack of extension backup, resulting from a lack of involvement of existing extension agents operating in the KWNP area.
- Villagers are lectured by Park Management, Because no agenda is pre-noticed, villagers come unprepared.
- Lack of feedback to general village bodies (at least in Jali, Dumbutu, and Batelling.)

RECOMMENDATIONS:

- Involvement of the existing team of NGO/Government extension workers operating within KWNP villages as ex officio members of the TAC.
- Strengthening of village level institutions by constant village level meetings.
- Orient village representatives regarding their roles within the TAC.
- Give notice of agenda items for meetings.
- Encourage feedback by follow-up.

ACHIEVEMENT: Community participation was expressed by villagers' willingness to host and meet all costs (food, boarding, lodging, time, etc.) of TAC meetings.

LIMITATIONS: No records of TAC meetings are available at the village level.

RECOMMENDATIONS: Minutes of TAC proceedings should be made available to village

representatives for more discussion and feedback at the village level.

ACHIEVEMENT: Core staff exists and is organised amongst themselves to each be responsible for:

- general management and administration.
- environmental education.
- park public relations.

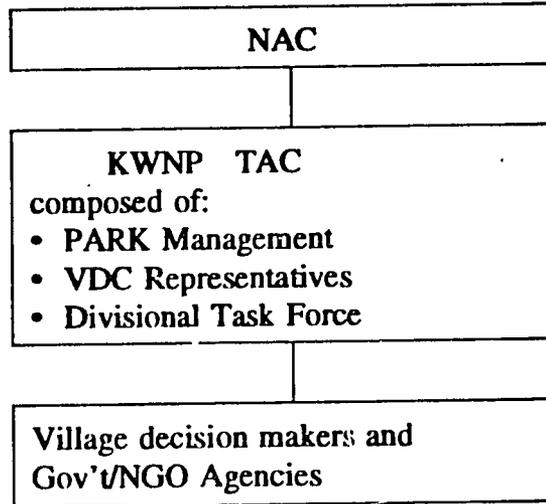
LIMITATIONS: The staff members are over-stretched and end up spending most of their time performing duties outside their area of competence, such as infrastructural development and construction management activities. The lack of adequate staff was recognized even by villagers in all quarters. No training of actors (VDCs, TAC members) has occurred to instill team spirit; even though the capabilities exist, the capacity to make it happen is weak.

RECOMMENDATIONS:

- Park Management be relieved of all infrastructure development.
- Provide administrative support services.
- Provide adequate and appropriate staff, staffing guidelines, and staff development plans.

AT THE NATIONAL LEVEL

It seems that the National Agency for Conservation (NAC), whose eminence was apparent and rightly recognised by the 1990 KWNP Biodiversity Support Programme report (BSP 1990), was not very functional or never enjoyed the desired relationships with the KWNP to the fullest extent. The institutional arrangements proposed for the TAC were described in BSP (1990, page 146) are as follows:



LIMITATIONS: The institutional limitations here include the lack of functionality of the above system, since the institutional framework seems too heavy and affects institutional output. Indeed the NAC has not been formed.

RECOMMENDATIONS: Adapt an Open Door Policy to allow participation of the private sector (Tendaba Camp, Kemoto Hotel, etc.) in the TAC; or establish new institutional arrangements to encourage their full membership in the TAC and equal incorporation at the national level (NAC) of the tours, hotel and entire industry. However, such an arrangement may tend to establish a Trust chaired by the concerned Ministry of Natural Resources, where government facilitates the climate for effective private participation within prevailing development policies. Such an arrangement would indeed require a degree of independence for the NAC.

Although peoples' perceptions of the KWNP vary, the following goals and objectives for the park seemed to have higher recurrence rates:

- To protect and develop the KWNP.
- To attract visitors, in particular tourists.
- To develop the necessary infrastructure in terms of water and electricity supplies.
- To develop agro-forestry and gardening around the KWNP boundary (i.e., in the buffer zone) as a result of water accessibility.

- To develop more employment opportunities.
- To build hospitality camps for special tourists at the village/community level, with Kuli Kunda accepting to host 10 at any one time for a start.

Additional perceptions of village residents near KWNP include the following:

- Most villages seem comfortable with the buffer zone arrangements except for Dumbutu, where pressure is heated in the buffer zone.
- There is a feeling that KWNP belongs to a Governing Agency (Government or any other Agency) desirous of developing the park and that KWNP surroundings belong to them, hence the need for integration.
- Considering the work at hand, the progress of work seems slow to villages even when things are seen as happening.
- There is a desire for fencing out the warthogs and pests from destroying their fields.
- Late payment has occurred for contracts and dues to villagers when clearing land etc. is undertaken.
- On the whole there seems to be conviction and commitment by villages to work with park management. The present arrangements and mutual understanding seem acceptable and workable if the above recommendations are taken into account.

LEARNINGS: There is evidence of the general awareness and acceptance of both the legal and moral existence of the park resulting from its very existence as a reality.

There is concern, interest, and evidence of participation from the communities in sparing time, food, accommodations for meetings, and adherence to constraints of having to request permission from village leadership to have access to and use of park resources.

The park staff, even though they are well over-stretched, give particular concern and good will to the needs of the community, winning the interest of the community. However other sectors like the existing hotel industry (Kemoto and Tendaba) together with concerned development agents and government agencies are seemingly left out.

No conflicts and no disputes were mentioned, even when some negligible amounts of tension existed here and there, for example in Jali.

Interagency rivalry seems present between and amongst agents/agencies within the area. However, time and care should be taken to ease tension, avoid disputes, and eradicate conflict. As the park programmes and activities intensify, there is concern for the following areas:

- Regulations relating to limitations, restrictions of villagers' access to and use of KWNP natural resources as desired should be well worked out; initially the implementation of such regulations should be seen as theirs. Untactful restrictions and mis-judgements should be avoided; communications have to be maintained and developed between all concerned, including community, agency, and park management personnel.
- When the park is seen as a sanctuary for pests that destroy villagers' crops, tensions are likely to grow possibly to become disputes and even conflicts.
- There is also a need for transparency in job opportunities. When job and related opportunities attract the more qualified from the outside, communities see themselves left out of the race.
- There are times when park management is not meeting expectations, i.e. is not able to lead, set objectives, communicate, delegate, restructure, and adapt.
- There are times when park staff are disillusioned and go for greener pastures elsewhere.

It is highly recommended that the head of the KWNP management team sit at the Divisional coordinating committee of the Lower River Division (LRD). This will highly enhance the capacities and capabilities of the TAC. The Commissioner LRD who is Chairman of the DCC needs to be approached by the KWNP management team leader on this issue as soon as possible.

The establishment of a development fund must be weighed in the light of similar experiences in the area such as the Department of Community Development (DCD) and AATC fishing programme in Jali, the DCD/ATU blacksmith programmes in Bajana and Dumbutu, and the AATG garden and bee-keeping programmes. It would be unwise to embark on any such Community Development without tapping into experiences of NGOs/Government development agencies in the area.

It is also recommended that any plan make maximum use of existing Government/NGO staff, particularly their expertise beyond the KWNP management capability. Applicable techniques and methods may include action oriented research and planning (e.g., PRA, MRA, DLD).

ON THE BAO BOLON:

How do we take along the foregoing learnings for use in the Bao Bolon situation?

The Bao Bolon is situated in the North Bank Division (NBD) of The Gambia, which stretches from Barra (West) to Ngen (East) with Kerewan as its administrative capital. The River Gambia divides the northern and southern banks of the Gambian territory, with KWNP on the south (in the Lower River Division) and the Bao Bolon on the north bank.

The Bao Bolon is that distributary that runs from the plains of Kaolack in Senegal to the River Gambia almost opposite Tendaba. The area is surrounded on the east by Jimansir Koto, Katchang, Jimansar Ba, Alikali Kunda, Jali Kunda, Illiassa, Daani, Yallal, India, Jajarri, Taliya. To the west of Bao Bolon are the communities of Duntumalang, Tumku, Daie, No Kunda, Conteh Kunda Sukoto, Niji, Biran Kunda. Mbande Kunda, Samba Kunda, Tamba Kunda, Mboubock and Jatta Kunda appear to be the nearest villages in Senegal.

The largest ethnic group in this area are the Mandikos, originating in the villages of Jimansir Ba, India, Kubandarr, Jarfari, Illiassa and Yuna which comprise the origins of the Bijankeer area (eastern side of the Bao Bolon). The origin of the name Bao Bolon could be attributed to a certain man called Bao who at the time of the early European explorers was found exploiting bango plants. There exist some Fulla and Wollof villages. When the original people first settled in the area, they were organised into a socioeconomic formation stemming from military democracy with a particular fabric of social political groups tending towards feudalism. They were part of the Baddibus as vassals of the Mansans at teliboo - manding. The value of migration was promoted and intensified by the conquest of TIRI - MAKAN Traore over Wollofu mansa, which was organised and spear-headed by Balla Fasineh from the Baddibu and gained its prominence and sanangu (cousinery) relations with the east - telibo. The river and its bolons (tributaries and distributaries) had always been the major means of transport with its contents and banks being the vital source of food and commodities. Islam is predominantly practiced and coexists with or is blended with the remnants of aminism. For most people living in the area, the major income source is cash crop production and remittances from outside the area. Commercial fishing (with the Bao Bolon fish a specialty and delicacy), some petty trading, seasonal labor, and other work are common. Pastoralism with free grazing occurs during the non rainy season. The annual agricultural activity extends from June to November, mostly tied to rains which also influences subsistence activities throughout the year. Thus food could be scarce towards end of the rains as previous savings are drastically reduced. Cattle, sheep, and goats are raised and grazed. It is easy to note why the several villages dotted along the Bao Bolon use it as food and resource base.

The NBD is administered by a Divisional Commissioner appointed and posted by the Office of The President. He is responsible for development planning, peace, security and stability for which he uses the Divisional coordinating committee composed of agencies (private,

government, and NGO) operating in the area. At the field level, the Ministry for Local Government and Lands is the umbrella functional office.

ADMINISTRATIVE ORGANISATION:

The North Bank Division is divided into six Districts each headed by an appointed Chief (Sefolu). The Bao Bolon is situated in the Western part) of the Upper Baddibu District, whose Seyfo is seated in Ngen Sanjal. The Seyfo draws its authority from and through a District Council composed of village heads (Alkalolu) within the District.

Several Government and NGO Agencies operating in the Division are represented at both Divisional and village levels. Each of these Agencies has its special areas of professional interest and concerns with the NGO community present to supplement government efforts. There is an area council governed by elected chancellors, whose primary concern is tax and income generation in support of the village initiative support activities.

Within the framework of integration there exists a Divisional Coordinating Committee responsible for development, planning, management, and evaluation in the Division.

The villages living around the Bao Bolon area have populations ranging from 100 to over 3000 people. People live in extended family systems within a patriarchal set up. A typical village has two basic subdivisions, the clan (Kabilo) and the family compound (Kunda). A Kabilo can consist of several Kundalu which claim a common lineage. Most of the Kundalu form a patrilineal group, although they may accommodate strange farmers or others from elsewhere. The Kabilo of the founding family tends to have central position of prestige and authority in the village. The Kunda as the production (Dabadaa) and consumption (Sinkiro) unit consists of houses, means of production, kitchen, stores, animals and social place (bentengo) for the extended social ambiance. The head of the compound (Kunda) is the eldest living male. He holds a powerful position in that he traditionally has complete authority over the economic and social affairs of the Kunda. That authority is vertically synchronized within the Kabilo to reach the entire village where Kunda heads compose the village authority.

In addition to the organisation structure that develops around the leadership roles played by the alkalo (village head), Kalibo (clan) and Kunda (compound) heads, there exist other socio-professional and age groups called Kafolu. A kafo is any group of people who come together under a common cause or concern of solidarity: women, youth, hunters, bee keepers, environmental, and sanitation groups.

Each village surrounding the Bao Bolon area lays claim to an area surrounding these villages, which may either abut or overlap the land claimed by nearby villages. Land claims are determined by the founding families at the time of settling. However, within this general land settlement and ownership pattern, the following trends could be easily identified:

Habitat: (compound) This is the area actually occupied for living and domestic use with high articulated ownership usually attributed to the individual household head - the Karoa.

Inner Fields: (called Dandamgo) This comprises the area immediately after the habitat, and this backyard is for subsistence and food crop farming, and usually belongs to the people of the compound. (Note relative collective ownership pattern.)

Outer Fields: (Kunkolu) These are for cash crop production and other food security production and usually belong to the Kunda as part of the Kabilo.

Fallow Land: This is an area farthest from the village towards the bush; this zone belongs to the Kabilo.

The Bush: This belongs to the whole village and is the land of the common. However some economic pockets and sacred parks and forest could be owned by families.

CLAIMS ON THE BAO BOLON:

All twenty villages mentioned above have and still exploit resources within the Bao Bolon. From Duntumalang to Mbandi (8 villages on western bank) and from Katchang to Taliya (11 on the eastern bank), all have rice fields, fish, graze and farm in the Bao Bolon area. Indeed Tunku is said to be owned (to date) by India Alikali Kunda, whereas Duntulalang is claimed by No Kunda. Access bridges could be seen at Katchang over the bolon even though the intrusion of salt water hinders its rehabilitation and proper use. The bridge linking India to Tunku is being considered for funding by B.D. coordinating committee within the Visa. Already, surrounding villages have introduced tongo (ban) on the use or sale by outsiders of thatching, fencing, rope and other resources, especially for those coming from Senegal through Jatta Kunda, Mbonbock, Tamba Kunda, Samba Kunda. Similar natural resource conservation techniques are seen elsewhere and need encouragement.

There is evidence of current construction of dikes and other irrigation techniques to combat salt water intrusion through the SWMA and the WFP, thus indicating the will and desire to develop the area resulting from high ownership feelings.

RECOMMENDATIONS:

- Institutionalizing village representatives within existing VDCs and villages to help foster trust and confidence as is the TAC in the KWNP.
- To recognize the traditionally incontestable claims of areas affected by the park - e.g. claims of Illiassa over Tunku since the times of Koli Marong are well acknowledged by the entire area. Similar cases exist which should be recognized.

- To involve all development agencies operating in the area at both village and Divisional levels.
- It is recommended to approach the CNBD and impress on him the need to integrate the Bao Bolon initiative into the activities of the D.C.C.
- To permit the monitored exploitation of bolon resources, recognizing traditional claims on the area retained by local villagers.
- Hold a series of meetings/discussions with surrounding villages prior to intervention and definition of the park area, since it appears different people talk of different areas as constituting the Bao Bolon area.

It is recommended that the human component of the Bao Bolon area be looked into more carefully, particularly in the areas of:

- I. Resource use including fuel wood, construction materials, thatching, fencing, rope, livestock, hunting, fishing, farming, gathering, water, communication, access, and ownership.
- II. Social, economic and religious patterns and trends and feelings.
- III. Attitudes towards and perceptions of people on the Bao Bolon conservation initiative. Develop consensus with all concerned regarding development needs, education, bridges, institutional development, and managements of park and environs.
- IV. Present and future social, economic, and cultural impact of tourism on local communities.

APPENDIX F: TERMS OF REFERENCE

I. Background

USAID/Gambia is interested in conducting an assessment of the Bao Bolon area that will examine the potential for ecotourism activities there, as well as the relationship between potential activities in the Bao Bolon and in the Kiang West National Park. Included will be an ecological survey and socioeconomic assessment, as well as the assessment for ecotourism. The objectives of the proposed assessments will be the development of recommendations to the Government of The Gambia (GOTG) and an action plan for undertaking these recommendations. The terms of reference for this proposal call for a team leader/ecologist, an ecologist, and a tourism specialist. In addition, two GOTG officials will be invited to participate in the project. One individual will be invited to perform a socioeconomic assessment of the Bao Bolon area. The assessment will, among other aspects, determine degree of human use in the wetlands. The second individual will be from the GOTG Ministry for Tourism and will participate in the assessment of the potential for tourism. These individuals, to be agreed upon jointly by the GOTG, USAID/Gambia, and the consultants, will be provided per diem to cover expenses when outside of their normal work stations.

II. Scope of Work

The following are general SOWs that can be refined to a limited extent upon arrival of the consultants in-country. Changes must be agreed upon by all parties (USAID/Gambia, LAI, and AFR/ONI/PSD) and final SOWs must be in place and agreed upon before work can begin.

A. Team leader/ecologist (TLE) - This individual will be responsible for insuring that all aspects of the assignment take place and will also play a role in the ecological assessment. The TLE will ensure that logistical arrangements are made for field trips, will serve as the principal liaison with USAID/Gambia and the GOTG, and will be responsible for paying per diem expenses for GOTG officials participating in the project and other authorized expenses, such as transportation in-country. This individual will also work with the ecologist to ensure that the ecological assessment and report are presented in accordance with the SOW and will take an active part in the ecological assessment. This individual should have ecological experience that is complementary to that of the ecologist.

B. Ecologist - The ecologist will be responsible for performing an ecological/biological assessment of the Bao Bolon areas under consideration. The person selected will coordinate and work closely with the team leader, but will have principal responsibility for undertaking the ecological/biological assessment and preparation for the report. This individual will be well-versed in science and scientific ecological assessment.

Responsibilities will include the following tasks:

- 1. Identification and inventory of major ecosystems and species composition in the Bao Bolon area and ecosystem mapping of the area.**
- 2. Assessment of the bio-diversity and species richness of the Bao Bolon area. This will include a description of the wetland area and its natural resources, concentrating on the birdlife and scenic potential.**
- 3. Preparation of a wildlife management plan.**
- 4. Assessment of the threat to wildlife habitats from human habitation and other activities.**
- 5. Provide sufficient ecological information to enable the DWC to determine acceptable use limits of different areas of the wetlands reserve and enable DWC to utilize information for wildlife management and ecotourism.**

C. Tourism specialist

- 1. The tourism specialist will assess the potential for ecotourism in the Bao Bolon wetlands area and the relationship to tourism already in existence in the Kiang West National Park. The assessment will include what promotion of the wetland area should be geared to, i.e., birds, other wildlife, swimming, fishing, other combinations. The assessment will target what the tourist market really is, how wetland boat trips can be packaged for promotion, and assess linkages with foreign tour operators in Europe and the U.S. This will include meeting with Gambian officials and private tour operators to assess tourist flows and potential, and may necessitate visits to locations outside of The Gambia.**
- 2. He or she will recommend a tourism development strategy for the wetlands and Kiang West National Prk that includes significant private sector involvement. He or she will analyze realistically if the Bao Bolon wetland area should be on the tourist agenda and whether it would be economical for private operators to travel to the area. Recommendations can also be given regarding the value of the areas as an extension of KWNP.**
- 3. Complete action plan for review by Gambian officials. This action plan should contain an analysis that will be valuable to private tourism operators already in The Gambia.**
- 4. The tourism specialist will ensure that the assessment and recommendations conform with GOTG ecotourism policies and plans and GOTG concurrence that may be on the books now.**

III. Reporting Requirements - Deliverables

The final report will contain two parts:

1. The ecological assessment, covering the points described in the SOW for the ecologist. This section will also include the socioeconomic assessment prepared by the GOTG representative.

2. The assessment prepared by the tourism specialist, and containing the points described in the SOW for the tourism specialist, including recommendations for a tourism development strategy and an action plan.

A draft final report will be distributed to the Mission approximately 3-5 working days prior to departure. A presentation on the findings and recommendations will also be given during the same time period. The final report will be prepared by the team leader in the U.S. and will incorporate the comments received from the Mission and GOTG prior to the team's departure. The final report will be completed within two weeks after the team's return to the U.S.

IV. Relationships and Responsibilities

The consultants will report to Gary Cohen, Agricultural Development Officer, USAID/Gambia.

V. Other

1. Contractors are responsible for bringing their own computers.
2. The Mission will arrange hotel accommodations and airport assistance if requested.

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